

HELPING FOREST DWELLERS OF ORISSA
TO
ADOPT VIABLE ALTERNATIVES
TO
SHIFTING CULTIVATION



ISO/SWEDFOREST



SIDA



CENDERET

DESIGNED AND PRODUCED BY
CENTREPOINT COMMUNICATIONS, BHUBANESWAR.

HELPING FOREST DWELLERS OF ORISSA TO ADOPT VIABLE ALTERNATIVES TO SHIFTING CULTIVATION

**NOTES & GUIDELINES
FOR OFFICIAL AND NON-OFFICIAL AGENCIES**

25 DECEMBER 1990

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A WORD OF INTRODUCTION

The present document is the outcome of a process of research and dialogue. It started with a field study by CENDERET amongst a sample of 400 forest dwellers of Orissa, who today survive by engaging in shifting cultivation. The findings were discussed with NGOs and officials, who are concerned with this problem and intensive interaction took place between the two, at a workshop organised at Xavier Institute of Management, Bhubaneswar, on 15-16th October, 1990.

It is not a report of the usual type, but rather a set of notes and guidelines, emerging from this interaction. They are meant for officials and non-officials, when they interface with each other, or together they interact with the forest dwellers. The latter are increasingly becoming aware of the unviability of shifting cultivation and are willing to adopt alternatives, provided there is somebody to hold their hand during the transition.

Shifting Cultivation, or Podu as it is locally called, is an ancient problem, and efforts to contain it date from even before Independence. Success obtained by the Forest Department, the Soil Conservation Department, the Tribal Welfare Department, the Integral Tribal Development Agencies, and anthropologists associated with these agencies has been uneven. Till now a formula, fully acceptable to the people, has not yet been found. The search continues.

On the other hand, the need to assist the forest dwellers, is immense. Only a small percentage of them are at present covered by official programmes to find alternatives.

Official agencies, amongst which the Forest Department occupies pride of place, therefore, increasingly welcome the cooperation of the NGOs, and feel that the latter can especially help in HRD, the Human Resources Development face of the problem.

Official agencies and NGOs can henceforth look as partners, to a common challenge they are called upon to solve with the shifting cultivators. The two can work together, but this needs on both sides, a readiness to adjust, patience and keenness to help the other party succeed in its task. This process of learning will require some time, as the organisational cultures of the partners differ from each other considerably.

After a short report on what transpired at the Workshop held on 15-16th October, the volume lists the documents and conclusions and resolutions that emerged from the interaction. It also contains an agenda for a follow-up programme. A number of documents have been reproduced in appendix, which may help both the partners, as reference documents.

What about the third partner, the tribal people of Orissa, who engage in shifting cultivation ? They were not represented as a group in the workshop, but spoke indirectly through the research findings which had taken account of their views. A handful of representatives of the tribal communities, however, active in some NGOs in the State, were present and did speak up.

The matter contained in these guidelines has the approval of the highest officials of the Forest Department. The document, therefore, expresses an understanding that has been arrived at between official and non-official agencies.

The guidelines will prove their effectiveness to the extent they facilitate effective action, at the field level. It is the ardent hope of the sponsors that this will take place, and that we will learn more, as we move along with growing understanding.

Anders Nystrom
Project Coordinator
SIDA supported social forestry project
Orissa, Bhubaneswar

25 December 1990

M.V.d. Bogaert, sj
S. P. Das
Latha Ravindran
Paul Fernandes, sj
CENDERET, Bhubaneswar

FOREWORD *

Shifting cultivation is an age-old practice and is a way of life of the tribals. But, of late, this has become more pronounced as the cycle gets shorter and shorter and its economics more negative due to biotic pressure. Attempts in the past to wean away the shifting cultivators from the practice have not been totally successful. Obviously, alternate strategies are in order.

The shifting cultivators should be brought to the centre of the stage in the matter of planning and implementation of schemes for their rehabilitation. In this gigantic task the NGOs can play an effective role as an interface between the Government and the tribals.

The workshop has thrown some new light on the problems and the possible solutions. They need be followed up by respective quarters. I hope this will be a precursor to further research and thinking in this sphere and will serve as a guide for future and not an end in itself.

Sd/- (P.K. Mohanty)

15.12.1990

Commissioner-cum-Secretary to Govt.

Forests, Fisheries &

Animal Husbandry Department

Bhubaneswar

* This foreword is not to be taken as an official endorsement of the recommendations of the workshop.

Chapter 1

AN ENCOUNTER BETWEEN OFFICIAL & NON-OFFICIAL AGENCIES

REPORT OF THE WORKSHOP HELD ON 15-16TH OCTOBER, 1990

I. THE PRELUDE

On 1st September 1988, the SIDA (Swedish International Development Agency), Coordinator, Bhubaneswar asked CENDERET to study whether there was any viable future for shifting cultivation in Orissa. On 1st November 1988, the Director, Social Forestry Project, Orissa, gave the green signal to go ahead with the field study.

A team of researchers were fielded and interviewed a sample of 400 households who engage in Podu Chasa, in ten different locations in Orissa, covering Ganjam (2 cases), Kalahandi (2 cases), Keonjhar, Koraput (2 cases), Phulbani (2 cases) and Sundergarh districts.

On 10th December 1989 a provisional report was submitted to SIDA. The gist of the findings was that podu is less and less viable and that the future for the shifting cultivators looks grim.

SIDA, being interested in pragmatic action, then asked CENDERET to concentrate on what could be done, what viable alternatives seemed to be available, to replace shifting cultivation. It agreed to an extension of the research period, so that the researchers could come up with answers to this question.

On 1st April, 1990, CENDERET submitted its final report to SIDA. The research findings were shared with the Forest Department at Bhubaneswar and in New Delhi. In order to share the findings more widely, SIDA requested that a summary be prepared for circulation amongst officials and NGOs in Orissa. CENDERET completed the assignment in the form of a working paper, which was ready by 31st August. It evoked a good deal of interest, and had to be re-printed.

Dates, 15-16 October, were fixed for the Workshop, for officials connected with podu, especially the Forest Department, the Tribal Welfare Department, the Tribal and Harijan Research cum Training Institute, Anthropologists, who have studied the problem, and NGOs. The response

was keen. The organisers had planned for 40 participants, but more than 70 turned up. Their names are found in this document. The Workshop was held at Xavier Institute of Management.

II. THE WORKSHOP

After a word of welcome by representatives of the two sponsoring agencies, Fr R D'Souza sj, Director of Xavier Institute of Management, and Mr Anders Nystrom, the then Coordinator of SIDA, the workshop was inaugurated by Shri P.K. Mohanty, IAS, Secretary, Forestry, Animal Husbandry and Fisheries, Government of Orissa. A summary of the points made by him are found in Chapter Two. The Secretary was looking forward to new and fresh suggestions on how to tackle the problem of Podu Chasa and welcomed the cooperation of the NGOs. At present only 3% of podu cultivators are covered by official programmes. The field is therefore wide open for other agencies.

Session One was devoted to a presentation of the findings of the CENDERET report and the recommendations of the Working Paper. This was done by Fr Paul Fernandes sj, Dr Latha Ravindran, Prof SP Das and Dr MVd Bogaert sj of CENDERET.

When measured against the concern for people and concern for environment axes, Podu Chasa yields poor economic returns to people, and it contributes to the degradation of the environment. The cycle of recurring cultivation has become so short (3 to 5 years at best), as not to permit any respite to the bio-system to restore itself. The income that forest dwellers derive from minor forest produce does not make up for the deterioration in returns from Podu.

Sessions Two and Three were devoted to group discussions on objectives and modalities of NGOs as catalytic agents towards alternatives. The participants were divided into four groups. Reports were presented at Session Four, next morning.

Session Five and Six dealt with the problem of how to proceed in implementing alternatives. Session Five was presided over by Shri G. S. Padhy, Conservator of Forests. Experiences of the forest department and the NGOs showed that where people are left out from the

designing and decision making process of a particular intervention, the project, however well conceived, almost always fails. People must be at the centre of the stage and make the decisions.

Appropriate interventions to restore the environment to sustainability do require on the other hand technical knowledge about forests, trees, soil, water, contouring, which are usually not available with NGOs, except the better established ones. This information has to be obtained from official or technical agencies, or perhaps a special agency may have to be created to function as a resource centre for those taking up alternatives to shifting cultivation.

A disturbing finding is that extraneous factors, usually traders, induce the tribals to continue with shifting cultivation, because the former draw profit from the podu crops produced by the tribals, which they sell at a tidy profit. It has also been found again and again that where shifting cultivators have been given level land with land pattas at the foot of the hills as part of earlier efforts to rehabilitate them, this land has passed into the hands of trader-moneylenders to whom the tribals are indebted to the point of bondage.

In Session Six, Shri Ashoka Dalavai, Project Administrator, ITDA, Rayagada, explained how the concepts of mini-project planning and water shed management are suited to develop a system to contain shifting cultivation. The integral approach adopted in watershed management takes care of four systems at the same time : (i) the natural resource system, (ii) commercial development and interaction with the market, (iii) the physical system, consisting of roads and other infrastructures, and the (iv) Human Resources Development of the Shifting Cultivators. NGOs are suited to play a prominent role in the latter function, HRD. A more detailed note is found in Chapter Two.

The Seventh and concluding Session elaborated a blueprint for follow-up action. Various desiderata were mentioned by both official representatives and NGO members. It was left to the organisers of the workshop to draft the conclusions and resolutions in a coherent manner, and see that they get the concurrence of the official agencies, as soon as possible.

The high attendance of NGOs and officials, till the end of the workshop, inspite of the fact that the Assembly was in session, showed the keenness with which the members saw their task. This was a first encounter of officials and non-officials within an academic setting. It is to be followed up by building up working relationships in the field. The ball has been set rolling.

III. THE AFTERMATH

1. It remains for the official agencies and the NGOs to decide what concretely each is going to do, as an expression of the commitment which emerged at the workshop to work together. This can eventually be expressed in a written document, a memorandum of understanding (MOU) with the podu cultivators as suggested by the Secretary, Environment and Forests, Government of India (D.O. No. 6-21/89 F.P. dated 1 June 1990— See appendix 2).

2. The report of the workshop, drawn up by the sponsoring agencies, and approved by the official agencies, should be in the hands of the participants as soon as possible.

3. To facilitate work at field level, a Shifting Cultivation Management Cell, in short a Podu Cell, should become functional at State level as soon as possible.

This body of persons, informal in nature, would consist of representatives of the Forest, Tribal Welfare and Revenue Departments, some NGOs, an anthropologist, members of CENDERET, of the OUAT and of a donor agency.

4. The hope was expressed that when issuing further official notifications about social forestry, and measures to contain shifting cultivation, the Government of Orissa would keep an account of the views and needs expressed in this report.

The text of the conclusions and resolutions of the workshop are found in Chapter Two.

Chapter 2

DOCUMENTS EMERGING FROM THE WORKSHOP

In the present chapter, matters discussed during the workshop are given, but they have been summarised in the form of short notes. The chapter ends with the conclusions and resolutions of the workshop.

1. Inaugural Speech by Shri PK Mohanty, IAS, Secretary, Forests, Animal Husbandry and Fisheries Departments, Government of Orissa.

- * Podu Chasa has become a 'burning' issue for Orissa, literally and figuratively speaking. It is an old practice, and efforts to contain it, date back from practically since Independence.

- * The State has a recorded surface of 57,000 sq kms of forests, though in the field this is much less. This is the third largest cover in the country, and accounts for 9% of the total forested area of India.

- * According to satellite information, this area has depleted very rapidly. Between 1983 and 1987 alone nearly 6,000 sq kms, more than 10% of the forest cover, has been lost. With a rate of 50,000 ha of replantation each year only, we do not match this deterioration. The survival rate of these plantations varies greatly. (In Keonjhar it reaches only 50%).

- * The scheduled tribes practising Podu are not really responsible for this destruction of forests, but they are made the scape goats. It is the greed of the urban dwellers, which impels the contractors to engage in illegal felling. The growing population also creates high biotic pressure.

- * The Forest Policy of 1988 and other documents emerging from the Government in the recent past, show an altered approach, the revenue approach has been replaced by a concern for human resources development of the forest dwellers. The 1988 Policy explicitly mentions the shifting cultivators in section 4.7 and does so in an understanding manner.

- * Podu is a way of life for forest dwellers, a method of combining agriculture with forestry, developed over the centuries. It was viable then, it no longer is today. A rough estimate states that 50% of forest cover in Orissa is subjected to shifting cultivation. Figures produced by the

Agricultural Department speak of about 1.85 lakh hectares, cultivated by 1.41 lakh podu families. The ITDA and ten Micro-projects, which attempt an integral approach to rehabilitation, have met with limited success. They cover only 5% of podu cultivators. So, we need assistance of other agencies.

* The Forest Department has come up with two models for rehabilitation based on certain assumptions.

Model I

It assumes that the podu cultivators can be weaned away from shifting cultivation immediately if given viable alternatives, in the form of intensive plantation in their own habitat. Five hectares would be allotted per family, for rotation of energy crops and fast growing species on a seven year basis. Sisal would also be planted which provides a considerable amount of employment. Contour terracing would be done. This would provide 300 mandays per family per year, enough for not having to depend on podu. Food would be provided from the World Food Programme. The usufruct or products grown on the land would be with the podu family.

Model II

Assumes that shifting cultivators cannot immediately give up their podu, and may be permitted to carry on with it in a limited manner for a period of another four years. In this case they are weaned away gradually. They would be provided with seven plots of land (of 1 ha each plot) for plantation of pollardable and quick growing species they could use for slash and burn. This would provide 300 mandays of work per year. The question is whether enough degraded forest land would be available to take care of 2 lakhs of families. In this case also, there would be no difficulty in assuring the usufructory rights to the shifting cultivators.

* The podu cultivators should be consulted very soon, because micro plans are proposed to be implemented within the next two to three months.

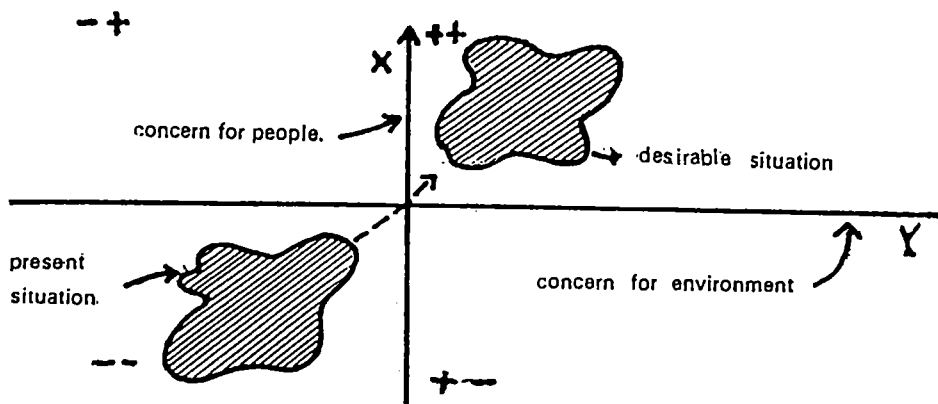
* Shri Mohanty was in favour of trying out these models, or other ones in two or three districts, with the help of NGOs, who can deliver the goods. If the experiment proves successful, the effort can be replicated in other districts.

* Regarding Forest Committees, he remarked that six thousand village committees had been set up to protect the Reserved Forests in the State. The principle is being extended to the protected forests also. Some committees exist on paper while some are active. The committees have the duty to protect forest and the right to usufruct of firewood and small timber for genuine domestic needs. If NGOs can help in activating all these forest committees, they would render a signal service. If found helpful, modifications can be introduced in the manner in which they are constituted. An incentive scheme for Gram Panchayats for protection of forests is on the anvil.

* Fresh suggestions and cooperation of the NGOs are welcome by the State Government.

2. Main Findings of the CENDERET Report and Suggestions of the Working Paper by Paul Fernandes, Latha Ravindran, S P Das and MVd Bogaert.

* If we use a quadrant approach to situating problems of the shifting cultivators, by using concern for environment as the X axis and concern for people as the Y axis, we can only aim at placing a suitable development in the upper right hand quadrant : high concern for environment and high concern for people.



Unfortunately, the field study of 400 families of shifting cultivators suggests that these forest dwellers have been reduced to the —— quadrant : low concern for environment, which they are destroying and low concern for people as well. All of them except a handful of families, are clearly below the poverty line, and they suffer from a guilt feeling, imposed on them from outside and interiorised, as if they are the destroyers of the forests.

Any meaningful programme has to lift them out from this —— situation to a + + situation.

* The first and foremost difficulty in podu containment, is that it very difficult, if not impossible to find out how much area exactly is under podu in terms of acres or local measurements.

* To compute the inputs and outputs from shifting cultivation has caused headaches to field researchers ever since the problem has been studied. CENDERET has adopted the method, scientifically justified and endorsed by other scholars, of computing the two main ingredients, seed and labour, into monetary values by taking into account market prices of seeds and value of labour at prevailing market wage rates. Since mixed cropping is practised on routine basis, the labour input common to all crops was apportioned between crops considering the ratio of the value of specific crop to the total value of all crops put together. The total return from each crop, even though they may be retained for self-consumption is valued at the prevailing market price to estimate total monetary returns.

When this method is applied, it is found that hardly 15% of all crops grown yield any positive returns to the shifting cultivators.

In many cases it is observed that the worth of crop yield is less than one fourth of the worth of labour and effort involved in producing it.

Shifting cultivators would earn more if they had been able to find daily labour. Yet they continue with shifting cultivation, because for them it is a question of subsistence and they see no other solution, they are cornered. Other benefits do accrue to the shifting cultivators, such as minor forest produce, collection of fuel from crop residue, etc. Even if this is taken into account, their situation is desperate. They are aware of it, and

are willing to adopt alternatives, provided there is somebody, to show how, and to hold their hand.

- * How several voluntary organisations in the podu chasa region, are helping the shifting cultivators in their human resources development, and empowerment has been described in the panchashila of people's development, mentioned in the working paper. (It is found in the appendix). It must not be forgotten that while on the one hand, the shifting cultivators are still said to destroy the forests, several groups have limited or stopped the practice altogether. A sign of hope in the forest situation, within the districts known for podu chasa, is that the forest protection movement has been growing into a popular movement. Unfortunately it has not been properly documented till now, and therefore is not known within the State or in other parts of India, while the West Bengal and Gujarat cases are known all over the country. Whom to blame, except ourselves ?

We can learn much from the pioneering experiences of the NGOs in Orissa, who have gone ahead in this direction, and some of which were represented at the workshop.

- * As regards patterns of intervention available to NGOs, they consist of two possible approaches : (they are not to be confused with the two models, developed by the Forest Department, mentioned earlier).

Pattern I : NGOs as Interface

As mentioned in D.O. letter no : 6-21/89-F.P. of 1st June 1990, of the Secretary, Ministry of Environment and Forests, Government of India, Section 3, voluntary agencies are associated at the interface between State Forest Departments, and possible other Departments, and the local village communities for revival, restoration and development of degraded forests.

Under this arrangement, and in full understanding with the Forest Department or any other official agency, which functions as Lead Agency, the NGOs only look after the Human Resources Development aspects of the programme. This means taking the people through the panchashila of people's development, looking also after the monitoring of how people react to the inputs of the lead agency, and functioning as trainer agency, for

whatever inputs the shifting cultivators need to adopt viable alternatives. What is meant by the panchashila is explained in Appendix No 7.

Pattern II : The NGO as Lead Agency taking care of all aspects of rehabilitation of shifting cultivators

This approach can be adopted by larger and better established NGOs, which besides the HRD aspects of Model I, take care of all economic, legal, technological aspects of rehabilitation as well, and function therefore as fullfledged Lead Agencies.

It is desirable that some NGOs assume this role on a pilot basis. It would permit them to adopt and experiment with methods, that are alternatives to the methods adopted by the official agencies.

The preferred approach would be the Watershed Management system. The NGOs could also experiment with such methods as the one developed by the Chakriya Vikas Pranali, in Palamau district of Bihar (see appendix 4), or SALT, as developed in the Philippines (see appendix 5) and also spread the participatory action research and development (PAR) method of involving the shifting cultivators deeply into the planning of alternatives.

3. A Note of Micro Level Planning & Watershed Management, as explained by Shri Ashoka Dalavai.

Speaking on the basis of effective cooperation between the ITDA, Rayagada and Agramee, at Kashipur in Koraput district, he explained micro-level planning as follows :

- * It aims at the integrated development of both people and area, by restoring deteriorated environment to sustainability. It covers four aspects : Natural Resource Development, Commercial Development, Physical Development and Human Resources Development.

i. Natural Resources Development

It aims at the development of podu land into agricultural land, by checking run off of water, soil erosion, and restoring biomass cover. This is done by watershed management, which looks at land management and

water management, in an integrated manner, and also the introduction of agro-forestry, adopted to a particular watershed, taken as a unit.

Contour bunding assumes an important role in this approach, bunds follow the contours and are adapted to the type of soil and slope of the land. The contour bunds are made of rocks, or are planted with soil fixing grasses, such as sabai grass, or bushes and also subabul. Depending on the slope, each contour strip, bordered by a contour bund is planted with a mixture of forest crops, followed by horticulture, annual crops, as one comes down the slope. Mixed cropping is adopted, and crops are rotated from contour to contour, year after year. In the lower slopes, fishery in paddy fields, sericulture, and animal husbandry are combined with fodder crop plantations. The speed of run off of water is controlled. The biomass on degraded hill slopes is restored, with the result that fields at the foot of the hills, also can again produce once more. To take care of excess run off, diversion drains are laid out, to collect rain water in ponds lower down the slopes.

ii. Commercial Development

Care is taken that the farmers obtain a good price for their products in the market, and are not exploited by traders and middlemen. Group entrepreneurship plays a vital role here. Where possible, processing units are installed, for instance, to can fruit, so as to add value, and avoid flooding the market with excess products causing a crash in prices. The commercial development is specially adopted for the crops grown in a particular area.

iii. Physical Development

By this is meant the development of infrastructures, such as roads, drinking water, schools, dispensaries, banks, cooperatives, also proper legal tenure arrangements of land.

iv. Human Resources Development

It covers awareness promotion, education, training, instilling confidence, faith and organisational development amongst the people inhabiting the micro-plan area.

It is particularly in this last area, that NGOs have an important role to play. HRD at grassroots level is carried out by village animators, under the supervision of an escorting NGO. They run night schools, and see that the village committees are active.

One form of micro-level planning, and watershed management, as developed in the Philippines is called SALT, Sloping Agricultural Land Technology. Details about SALT are found in appendix 6.

The Chakriya Vikas Pranali, is a simplified Indian variant, developed in the drought prone areas of Palamau district in Bihar. It can be adapted to the wetter hill areas of Orissa as well. Details are found in appendix 5.

PARD, or Participatory Appraisal for Rural Development is a method to involve the shifting cultivators into the planning of alternatives and tapping the knowledge they have of their environment.

4. Reports of the Four Work Groups

Four issues were presented for discussion, one for each group :

Group 1

DOING AWAY WITH PODU CHASA

Issue for Discussion

If you are willing to take up any measure to contain podu, have you ever tried to find out from the podu cultivators about their readiness to do away with 'podu chasa' ? Do you think they would readily give up such an age old tradition which is part and parcel of their culture ?

Participants

CHAIRMAN : Mr Nityananda Patnaik

1. Bonani Samall, Xavier Institute of Management (XIM), Bhubaneswar.
2. Rajesh Mishra, XIM, Bhubaneswar.
3. A Jagadananda Sahu, KMDS, Parlakhamundi, Ganjam.
4. Ajit Bhartwar, Dy Director (M&E), Social Forestry Project, Orissa.
5. Choudhury G Mishra, Conservator of Forests, Working Plan Circle, Cuttack.
6. Santosh K Panda, Lokshakti, Balasore.
7. Dilip Ch Samantaray, OSSl, Baramba, Cuttack.
8. Chabila K Naik, TRUP, G Udaygiri, Phulbani.
9. Parasbhai, PRDATA, G Udaygiri, Phulbani.
10. Kundan Kumar, Rapporteur, SIDA, Bhubaneswar.

Report of the Group

The group feels that shifting cultivation is by no means inevitable. It could be stopped over the greatest part of those areas where it exists today, provided the current alternatives and approaches, and above all a strong will power and determination are adopted to bring this about. In fact in almost all regions where shifting cultivation is in vogue, a few of the more intelligent and industrious among the tribal people do cultivate a few plots of land in valley bottoms under irrigated conditions and permanent crop regime. The problem, therefore, now in many places like Bonai, Bamra and Pallahara and some areas in Phulbani, Gunpur and Parlakhamundi is not

to persuade the tribals to give up shifting cultivation and take up settled agriculture, or any other income generating means of livelihood, but to cope with the rising expectations and achievement motivation for a better standard of living. If this desire is not readily fulfilled, antagonism and frustration are inevitable.

In many areas, particularly the tribal areas in Southern Orissa, there is a considerable cattle population. Large number of famished animals swarming over the lower slopes which have grazed them bare. Both cattle and buffaloes graze at higher altitudes also and even on hill tops. In this case stopping of shifting cultivation does not solve the problem. Unless grazing on hill slopes is restricted, the hill slopes would continue to be degraded by the continuous onslaught of cattle.

For many tribal communities, like the Gonds and the Bhuyans, the axe-cultivation has become nothing more than a habit. It has no root in their legend and mythology. Its customs are no longer clear and mandatory. For example, the straw rolled lighted torch or fire from their dwelling house is used to light their podu clearings, instead of the sacred fire from the Mandaghar as is in the case of the Juang neighbours. The use of plough is not a taboo among them as is true in the case of Juangs and the Baigas. They are aware of the fact that shifting cultivation means poor living and that they would get nothing but advantage by abandoning it.

Older people resist change and most doggedly stick to pre-agricultural level of technology. Therefore, the younger age groups who are generally more amenable to new ideas and changes should be tapped for transfer of technology and introduction of innovations in methods of production.

A noticeable feature of the hill tracts, both in North and South Orissa, is the fine groves of Jackfruit and mango trees, and orchards of banana, pineapple and citrus plants. These plantations provide the tribals with a valuable cash crop as well as with a nourishing food. Introduction of improved practice in horticulture is one major way in which the economic condition of the people can improve.

Another noticeable feature of certain tribal areas, particularly Ganjam Agency is terraced rice fields. The Saoras show great ingenuity, in contour bunding, water management and terracing. Paddy plants are transplanted in terraced fields under irrigated conditions with application of cowdung manure, and recently introduced fertiliser and pesticides. The Saoras should be provided with improved agricultural inputs and kept busy full time so that attention is slowly diverted from Bagada Chasa to wet cultivation.

In areas like Keonjhar, Bonai, Bamra and Pallahara where the tribal people see material advantage of settled cultivation and diminished crop yield from the swiddens there has been a spectacular change in their outlook and a desire for settled cultivation has been created. In fact, the Juangs of Keonjhar in many villages have given up second year toila cultivation and have taken to paddy and wheat cultivation in valleys under irrigated conditions. It is a fact that in many areas, the non-tribal traders instigate the tribals to take up cultivation of turmeric and ginger in swiddens for the benefit of the traders themselves, and not of the growers.

The problem in these areas is not so much of shifting cultivation as that of exploitation by local traders and money lenders. What is required for the economic development of the people is to bring about awareness among them about constitutional safeguards and protective legislation and strict enforcement of anti-exploitative measures.

The problem of shifting cultivation is a matter of change in attitude. The tribal people in general have low need levels. So long as they have sufficient food for the day, they care little for tomorrow and they appear to lack the desire of self-improvement. This attitude should be changed if their economic condition is to be improved in the process of weaning them away from shifting cultivation.

The tribal areas, particularly those located in hilltracts are most underdeveloped because of lack of infrastructural facilities. The middlemen and merchants take advantage of this situation and exploit the tribals by various ways. It is necessary to develop roads in these areas and provide fair price shops wherever they are not available and rejuvenate the LAMPS wherever they are not functioning properly and have become defunct.

Without educational improvement, no other improvement is possible. Schools should be established in villages where they are lacking, and made functional by meeting the deficiencies in teaching staff, in building and boarding facilities. Adult education programme and functional literacy is equally and in many respects more important than normal schooling and in this context educational component should form an integral part of all types of developmental programmes.

Different tribal communities present different life styles due to difference in their social systems and cultural patterns, in their ecological setting and means of livelihood, degree of cultural contact and achievement motivation. Although area development approach is commendable, it should be followed with emphasis on the specific tribal community inhabiting the area. It means that based on the life style of the tribal groups, programmes of development should separately be planned for each ethnic group.

The Area Development Approach with emphasis on Tribal Development will have the following components :

1. Human Resource Development : Individual/family oriented benefit schemes, such as awareness building, educational improvement, development of skill for need based occupations and vocations, achievement motivation, and development of material assets.

2. Development of the area and inhabitants : Development of infrastructures (roads, schools, health centres, LAMPS, Banking system, markets, VLW/VAW headquarters, agricultural depots, progeny orchards, electricity, water supply, irrigation facilities, etc.).

The shifting cultivators depend heavily on forests not only for land for cultivation, but also for earning subsidiary income through collection of minor forest produce or as wage earners in forestry activities. It is essential that their bias towards forestry and forest activities should be allowed to continue so that these resources could be conserved for mutual benefit.

It is incumbent that the public distribution system, including LAMPS and marketing network should be streamlined so that the tribals get their daily necessities at a reasonable price and a fair price for their forest produce.

As the situation stands today, it is possible to do away with shifting cultivation. But the prosperity and happiness of the shifting cultivators that is envisaged to come about cannot be achieved unless all sources of exploitation are plugged. The lands possessed by the tribals in the valleys have passed into the hands of the liquor vendors and money lenders. The improvident habits, ignorance and illiteracy of the tribal people, often lead them to part with most of their agricultural and forest produce in repayment of debts at an exorbitant rate of interest. The cunning and rapacious sycophants and money lenders as well as traders are largely responsible for their misery and ruin. In this respect they are badly in need of vigorous protection vis-a-vis Government, until they have advanced sufficiently to look after themselves—a matter of not less than two generations.

The sustainability of the success of our endeavour depends upon two factors : (1) involvement and participation of the target group and (2) spread of education and a broad perspective and awareness about various programmes of tribal development. Moreover, food and medical aid are the prime necessities after that education. Without it, progress cannot be made. On it depends the future success of the tribal development schemes.

The type of work which must be undertaken to accomplish the social and economic betterment of the tribal people and to wean them from the destructive cult of shifting cultivation is not one that can be conducted by a secretariat or from an office. It can only be dealt with by practical workers in the field to whom responsibility together with adequate powers and discretion have been delegated. The personal touch is essential; red tapeism could ruin all chances of success. But the right type of worker is not easy to procure. He must be the essence of tact and discretion, at the same time be firm and persevering, and he must be selfless. The work will take him into the remote and unfrequented parts where he will often have to rough it out. He must, therefore, be imbued with the zeal of a missionary. He must watch to see that the tribals are not exploited by his subordinates, and, as far as possible, only men of proved integrity should be employed. Where there is a tribal language, he should make it his business to learn it, for there is no better way to the heart of a tribal than through the knowledge of his language, even if it be only a smattering.

Where do we find out this kind of persons ? They are found amidst us : voluntary workers of the so called tribe of NGOs.

Absence of reliable anthropological, economic and statistic data on shifting cultivation, which varies from region to region and from tribe to tribe, is a major drawback in identifying the gravity and dimensions of the problem and designing solutions to tackle it.

Absence of area-wise data on duration of bush-fallowing, cropping pattern and crop yield, extent of denudation, degradation and erosion, extent of damage caused to water regime, intensity of run off, nature of rock and vegetational cover is a serious drawback in deliniating the areas into different gradations on the basis of the extent of damage caused by the practice of shifting cultivation and in devising area specific means, which will help the soil to re-establish itself and vegetational type progress towards the climatic complex.

Collection, analysis and tabulation of data gathered through schedules and questionnaires will be the work of either XIM or SIDA. There may be a special cell created to take up field work in different parts of the State and evolve techniques to show impact of works relating to shifting cultivation on the target group. It should be the work of the cell to devise monitoring and evaluation techniques, forms and questionnaires for data collection.

Group 2

CHALKING OUT A WORKING RELATIONSHIP

Issue for Discussion

The second issue is concerned with chalking out a working relationship among NGOs, Forest and other related Government departments, Government scientists, environmentalists and village communities, in the form of a written memorandum of understanding.

Participants

CHAIRMAN : Fr Augustin Karinkutiyl, Catholic Charities, Khurda Road, Jatni.

1. Anthia Madiath, Gram Vikas, Berhampur.
2. AV Swamy, VISWAS, Khariar Road.
3. J Parida, Jana Vikas
4. KC Sahu, Ashwin Project, Keonjhar
5. Dr SN Patra, OUAT, Bhubaneswar
6. GC Padhy, Conservator of Forests, Forest Dept.
7. BG Das, JAGARANA, Koraput.
8. S Nayak, Gumusar Mahila Samiti
9. Anders Nystrom, SIDA, Bhubaneswar
10. SP Das, CENDERET, Xavier Institute of Management, Bhubaneswar
11. Neera Mendiratta, SIDA, Bhubaneswar.

Report of the Group

It was necessary to have some conceptual clarity on the problem, alternatives and strategies to combat the problem of podu cultivation, before proceeding to discussion on Memorandum of Understanding (MOU).

It was possible to discuss only an approach to MOU and broad guidelines to the same, details of which have to be worked out after the alternatives and strategy to deal with podu are clearly spelt out and the concerned agencies and group sit together.

Shifting cultivation has now become both economically and ecologically unviable. However, the shifting cultivators are forced to

continue with it, as part of their survival strategy in a situation of no alternatives. They need to have choices—viable alternatives to this degenerating system of podu cultivation. And in the shifting cultivator's search for alternatives or even in recognition of need to search for alternatives, he needs to be assisted.

Alternatives to podu cultivation have to be found in micro perspective. Primarily these alternatives should be forestry and agriculture based without requiring drastic changes in the tribals' life pattern and their uprootment from their area. Suitable land policies and rights to tribals over the land are essential.

Concerted efforts are required by Government and non-Governmental agencies, environmentalists and scientists to ameliorate the situation. The lead role in this case should be taken up by the NGOs with support from Government agencies and environmentalists. The arguments in support of NGOs playing the lead role were :

a. The Government agencies by and large have failed to achieve a break-through till now. NGOs should be given a chance to play the role, they can fulfill.

b. An NGO's capabilities can determine the scope of their work and the operational area. However, the entire responsibility of implementation of strategies planned by them in consultation with the shifting cultivators and the Government agencies should be with the NGO.

c. NGOs should be recognised as equal partners of Government agencies in development efforts.

The importance of NGOs (especially local NGOs, Youth clubs and Mahila Samities) role as interface between Government agencies and the local people is to be recognised.

NGOs, if in the lead role, should undertake :

a. Participation in Government policy making process and influencing it (this process can be initiated at all levels through BLCC & DLCC, etc).

b. Planning (of the project) involving both Government agencies and local people.

c. Implementation.

d. Monitoring & evaluation (Government agencies should also undertake monitoring and evaluation of NGOs' work).

e. Feedback to Government agencies.

Government agencies' role in the process should be :

a. Framing suitable land policy; project formulation and guidelines formulation.

b. Identification of NGOs.

c. Responsibility delegation to NGOs.

d. Monitoring & Evaluation

In addition, the Government agencies should provide support to NGOs in the following form :

a. Funding.

b. Assistance in building NGOs' infrastructure or lending its infrastructure for use of NGOs in some cases.

c. Technical inputs.

d. Policy-level support and willingness to fine-tune rules, regulations and project guidelines depending on feedback from NGOs.

e. Access to information.

A support should be available from Government officials, from Forest Department, ITDA, Soil and Water Conservation Dept, Social Forestry Project, Horticulture and Agriculture Dept. The idea of formulation of a support team can be explored.

A forum at district level and State level should be provided for discussion amongst NGOs dealing with shifting cultivation, Government Agencies, environmentalists, anthropologists and sociologists.

Accountability of NGOs to the Funding Agency and the local people should be clearly spelt out in the MOU.

The Government Agency, who is primarily responsible for dealing with the problem, according to NGO representatives in the group, should be the Tribal Welfare Department or Forest Department.

Group 3

STRATEGIES & POLICIES

Issue for Discussion

How do you propose to carry out your role ? What policies are you going to follow and what are the strategies you are going to adopt ? What are the alternatives you find to be suitable in the areas of your operation ? The outcome of this discussion can take the form of a proposal drawn up for the use of agencies, Planning Commission, Wasteland Development Board, and so on.

Participants

CHAIRMAN : Prof Radha Mohan, Sailabala Women's College, Cuttack

1. Hemant Nayak, Gumusar Mahila Sangathan, Phulbani
2. TB Benarjeedas, REALS
3. Bharati Ray, CENDERET, Bhubaneswar
4. A. Mishra, NYSASDRI, Dhenkanal
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7. AK Bansal, Forest Department, Bhubaneswar
8. MVd Bogaert sj, CENDERET, Bhubaneswar
9. Badal Tah, ANKURAN, Narayanpatna
10. Kedarnath Ranjit, CYSD, Bhubaneswar
11. R Jamuda, Director, Tribal Welfare, Government of Orissa, Bhubaneswar.

Report of the Group -

1. To ensure people's participation in identifying needs/problems, finding solutions, alternatives and implementation.
2. Involvement of NGOs in planning and implementation of projects.
3. To educate people and make them aware of different forces operating.

4. To strengthen community organisation and people's leadership into action through group spirit.

5. People's access to alternative/supplementary income sources like forest produce, etc. to be enhanced and Government monopoly replaced by a protective role.

6. Cooperative society by women should be encouraged to counter monopoly and other types of exploitation. Inculcation of women in the political process and empowerment.

7. Interaction of different tribal groups of different areas (through NGOs).

8. There can be two broad based alternatives : (i) land based and (ii) non-land based.

Land Based could be through horticulture, settled agriculture, etc. *Non-land Based* could be through income generation activities like khali stitching, etc.

9. Checking exploitation and activating the policies.

10. Training/workshop could be a continuous process where people themselves alongwith NGOs and Government officials take part.

11. Frequent Government and NGO meets for exchange of ideas—preferably on site.

12. Community ownership of land could be thought of along with common mode of utilisation.

13. Information dissemination at all levels, especially of forest land amendments, new laws, issues. There is need for baseline information and documentation.

14. Monitoring and supervision should be properly done—preferably by the persons who have taken part in the process of interaction/dialogue from the very beginning.

15. Financial proposal is to be drawn up by each project or organisation basing itself on people's needs and their capabilities.

Group 4

HOW TO BRING PEOPLE TO ACCEPT AN ALTERNATIVE

Issue for Discussion

Do you think your anti podu operation would prove to be more successful if you make provision of your services to the people on condition that they would leave podu ? A discussion can be carried out regarding the pros and cons of this kind of a simulated situation.

Participants

CHAIRMAN : Mr. Ashok Dalavai, ITDA, Rayagada

1. Harishchandra Dash, SOLAR, Konark
2. Saranga Samal, NYSASDRI
3. Dinesh D'Silva, Samman, Berhampur
4. D Barik, Darbar Sahitya Sansad
5. Shankarsana Hota, PIPAR, Dhenkanal
6. Durga Dash, PALISHREE, Gasiput
7. GC Mallick, DNSS
8. UN Behera, Varrat
9. Arati Padhee, CENDERET, Bhubaneswar
10. Mr Choudhury

Report of the Group

The proposition whether anti-podu operation can be offered on the pre-condition that the people would stop podu practice presupposes that the podu cultivators have realised that podu chasa is both economically and ecologically non-viable. The question can be answered if we can study the level of awareness about PC and the range of alternative development strategies known to them. Against this background the known evidence indicates that podu cultivators in Orissa are not as yet prepared to be offered a conditional proposition.

When we talk of conditional offer we are essentially talking of a market economy where the participants are highly aware and competitive. To cite an instance of the futility of such an offer the experience of Nepal,

Tarai region can be quoted : when the Govt. of Nepal directed its podu cultivators to stop podu by a Government decree the people refused to comply. But the same people cooperated when the Government offered an alternative through horticultural plantation.

There is always a resistance to change. The strategy for success lies in weakening this resistance and gaining the confidence of the clientele to a participatory approach to development.

To do this, the following points have to be borne in mind :

- a. What is the tribals' self-assessment of his situation ?
- b. What is his level of awareness ? Does he perceive podu as unproductive ?
- c. What is his level of response to new ideas ?
- d. What is his opinion about the delivery system—both Governmental and non-Governmental organisations ?
- e. Does he have any religious and cultural relation with podu practice ?

Various Government programmes have failed because the clientele was treated as the object and not the subject. The people have not been involved in planning and implementing the programmes. The tribal in particular has been treated as an ignorant and irrational being—who does not know what is good for him. Since the programmes have been imposed on him, the social protection expected from him has not come through, e.g. destruction of fruit bearing and well established orchards in DKDA, Chatikona area. Similar destructions have also been noticed in recent plantations by OTDP, Kashipur.

Besides making the people feel that they decided the programme, their felt-needs should also be incorporated in the programme, e.g. ensuring food security in anti-podu operation through agro-forestry principle rather than substituting only perennial crops for animals.

It is possible to make a conditional offer if the clientele can be befriended and its confidence elicited in the intentions and the ability of the delivery system. There are several such bright examples in both Government

and non-Governmental sectors. The crisis of confidence between the people and the Government is the result of sloppy performance in the past. Such actions have produced negative results.

When a range of development strategies are offered, the following issues may be considered :

- a. Teach the tribal to analyse his present situation in the context of economy and ecology. He should also be made to think as to what he can do for himself.
- b. As a group, the tribals live for today. The habit of saving to tide over future crisis or for future progress is absent. The solution lies in creating the saving habit amongst the tribals. This is capable of catalysing the process of thinking and finding new modes of podu. Presently the urge for saving which is fundamental to investment and income-generation is missing, e.g. out of 10 lakhs paid as wage arrears in Kashipur block, at least 5 lakhs went for liquor.
- c. The tribal should be informed that the yield potential of the natural resources on which he depends is declining due to defective management.
- d. Empower the tribals through conferring ownership rights of resources, endowing them with improved tools and technology. Thirdly, education should be imparted to enable them the use such tools.
- e. Demonstrate to the tribal that the alternate strategy being offered to him is superior to his present situation and is economically and ecologically viable.

If the people can be prepared as above, then it is possible to make a conditional offer, that our service is subject to their giving up podu chasa. Otherwise, it will be like putting the cart before the horse !

5. Conclusions and Resolutions of the Workshop

1. In view of the great need to provide escorting services to more than 90% of podu families in Orissa, which remain uncovered by official programmes, and the positive encouragement of the Government of Orissa

expressed by Shri PK Mohanty, IAS, Secretary, Forests, Animal Husbandry and Fisheries, the NGOs of Orissa present at the workshop unanimously accept that they are called upon to play an active role in helping shifting cultivators to find viable alternatives to podu chasa.

This can be done by either cooperating with official agencies, where a programme is already functioning, or initiating a programme with a group which is not yet benefiting from such an intervention.

2. The NGOs realise that they have to equip themselves for this task, and therefore want to learn from each other, especially from those agencies which have already gone ahead and gathered experience. They also expect that agencies at State level, such as OUAT, SIDA, CENDERET, the Forest Department, the Soil Conservation and Revenue Departments, will offer orientation programmes, and training in the technical aspects of micro planning and water shed management.

They want to learn about Chakriya Vikas Pranali, SALT, and Participatory Appraisal Research and Development (PARD), preferably by seeing how these methods are applied in the field.

3. Depending on the organisational ability and availability of technically qualified personnel, who can be recruited for the task, or consulted, the NGOs discern that there are different levels of involvement.

The first level, for which NGOs are by their nature well suited is to take care of the Human Resource Development aspect by escorting shifting cultivators according to the Panchashila of Development.

This can be done in projects which are already being run by the Forest Department, the ITDA, or other official agencies, provided the latter welcome such cooperation. The NGO can also initiate such a programme where none exists, especially with groups amongst whom they have been working already. This can be done in the expectation that when this HRD has sufficiently progressed, the NGO itself or another NGO or an official agency pursues the technical inputs of the search for viable alternatives to shifting cultivation.

A second level of intervention, related to the first, but for which some technical skills are required, is to undertake the collection of data on extent of podu in an area, changes taking place, also to monitor and evaluate how programmes are faring, and finally, to offer training to shifting cultivators in managerial skills of mini-project administration, watershed management and technical skills about the soil, water and trees management.

A third and deeper level of intervention occurs when an NGO assumes the role of lead agency, and besides the HRD aspects and activities involved in the second level, undertake the integral rehabilitation of the shifting cultivators taking care of the four faces of rehabilitation : (i) natural resources development, including mini-project planning and watershed management, (ii) commercial resources, taking care that the interface with the market functions smoothly, (iii) physical development, assuring the other infrastructures, roads, drinking water, schools, health, function and (iv) human resources development.

Only well established NGOs, with technical personnel amongst their staff, or recruited for the purpose can think of this third level of intervention.

It would be desirable if some NGOs in Orissa undertake such work on pilot basis and try out methods of rehabilitation, such as Chakriya Vikas Pranali, Sloping Agricultural Land Technology (SALT), and other methods which have been documented by the ICAR.

4. When choosing an area for adoption, the NGO and for that matter, the official agencies also, should pay attention to the following points :

a. Avoid overlapping or duplicating efforts, or worse, working at cross purposes with other agencies. On the contrary, it is desirable to keep agencies in the neighbourhood informed of what one intends to do.

b. The 'natural' unit for undertaking alternatives, is normally a watershed area, consisting of a tract of land, drained by a particular stream, inhabited by a particular group of people, who engage in podu chasa.

A water shed is a technical term and an NGO keen to help with alternatives will do well to consult a technical person who can establish the natural boundaries of the watershed in which the NGO wants to operate.

NGOs will do well not to overstretch themselves, but rather work in an intensive manner, till they find a formula which yields success. Let them not spread their efforts too thinly.

c. The NGO must make up its mind whether it is taking up HRD, and data collection, monitoring and training, with an existing official programme, or whether it will take up an area, where no official programme is in progress.

A clear understanding has to be arrived at with the other agency(ies) and with the people, before an intervention takes place. A memorandum of understanding can be drafted in written form. The Collector must be kept informed.

5. The intervening agency should first be convinced and then convince the people regarding the economic viability of alternatives. Unless this message is conveyed to the people, it will be difficult to motivate them to give up podu.

The economics of various alternatives should therefore be worked out in terms of economic returns (income per annum) and in terms of creation of employment (mandays per annum).

One of technical agencies attached to the Podu Cell should help NGOs who seek help to work out these economics of alternatives.

6. An intervention towards alternatives can only be effective if the agency initiating it has also been exposed to the technical aspects of the alternatives and is acquainted with mini-project planning and watershed management. Grassroot workers have also to acquire a basic knowledge of soil, water, plant, trees, grasses management. Therefore orientation and training need to be organised at two levels.

a. For the NGOs and their Staff, an orientation to alternatives, watershed management, mini-project planning, technical aspects of soil, water, conservation, trees, grasses, etc. is necessary. These can be offered at State level in a series of five-day programmes, strung out over a period of six months to a year.

b. For Grassroot Workers of the NGOs, some NGOs in various districts, where podu containment is going on, will have to be enabled to function as Village Forester Training Centres (VFTCs), and offer one week or longer programmes to grassroot workers deputed by the NGOs. These VFTCs will in turn need the technical assistance of the OUAT, retired foresters, the Podu Cell. Suitable material will have to be prepared in Oriya, or in tribal languages (Kui).

7. A standardised form for collection of field data has to be evolved, in order to get an adequate view of the bench mark situation, before the intervention takes place, and then the subsequent changes that occur.

These forms should be such that they can be understood and filled in by the NGOs and other agencies.

In drafting the forms, other agencies will have to be consulted, including the Orissa Remote Sensing Application Centre (Orissa).

8. In order to facilitate and animate the efforts of NGOs and official agencies towards alternatives, a Shifting Cultivation Management Cell, in short, a Podu Cell has to be set up at State level in the very near future.

The task of this Cell is to make information available on technical, economic and other matters, to provide for suitable training, to put into place a system of monitoring and evaluation, to maintain liaison between various agencies, official and non-official, and to share information about what happens with a wider audience.

The Cell will have representatives of State departments concerned with podu, forest, agriculture, soil conservation, revenue, tribal welfare, some NGO representatives, an anthropologist, faculty members from OUAT and CENDERET.

The Cell will be informal in nature.

9. To do full justice to the technical aspects of alternatives to shifting cultivation, however, more may be needed. A technical resource agency, similar to AFPRO or Bharatiya Agro-Industries Foundation (BAIF), Pune may be needed. AFPRO (Delhi) has developed competency in watershed management in dry areas of Maharashtra, and is consulted by official as well as non-official agencies. The BAIF has developed a model of its own for rehabilitating tribal people.

Unless a sound resource centre is available for technical inputs in rehabilitation of podu chasa farmers, the efforts of the NGOs and of official agencies such as the ITDAs too, may remain amateurish in nature, and not really yield the results, that are hoped for.

10. The NGOs who opt for alternatives to shifting cultivation obviously need funding for this work. Participants from NGOs were of unanimous opinion that such should not be routed through Government channels, but be provided directly. The money may be of Indian origin, but as the Forest Department in Orissa is obtaining funds for its Social Forestry Programme from a foreign donor agency, there is no inhibition if the NGOs can also draw from this source, or other foreign donors.

11. Since women play such an important role in shifting cultivation, and in the alternatives to it also, special attention has to be paid to their views and interests. Income generation programmes for women may have to form an integral part of alternatives to shifting cultivation.

Care has to be taken that women have a decision taking structure of their own, if they cannot interact as equals with men, in the village forest committees.

12. As suggested by Shri PK Mohanty, at the inauguration, the NGOs will lend a willing hand to instill new life in the village forest committees which have already been set up by Government, for improvement of their functioning.

These village committees should grow into the decision making foci where alternatives to pudu chasa and modalities are decided upon.

13. Certain individuals in Orissa have established excellent rapport with the forest dwellers, and have in the past been instrumental in animating people's movements towards forest protection, as in Kesharpur area of Puri district. Prof. Radha Mohan and a few other university teachers have played such a role.

The Government of Orissa is being requested to cede the services of these individuals, for the sake of setting into motion a forest protection movement amongst the shifting cultivators. It is felt that the talents of these persons will be put to better use in such a situation, than if they remain limited to classroom teaching.

14. One of the reasons why shifting cultivators have hesitated to adopt alternatives, is because there has been hesitation by Government to give them land pattas. The willingness of the Government to provide usufructory rights is a step in the right direction, but is it enough ?

This is sure : as long as the highest instances in the Government of Orissa do not come out with a clear policy statement which assures land to the tiller, no efforts to find alternatives to shifting cultivation will find a lasting solution.

The representatives of the NGOs at the workshop also requested the Government of Orissa to have a second look at adopting the plantation approach as an alternative to shifting cultivation and leasing large tracts of land to private industrialists. The long-term wisdom of such step can be doubted.

If plantations are an answer, let them rather be controlled and managed by cooperative groups of rehabilitated shifting cultivators.

From past experience, it is clear that once shifting cultivators give up pudu chasa and take to settled agriculture, there is a great danger of their loosing land to traders and other interests. The NGOs have to pay very special attention, as part of their monitoring function (see point no. 3)

to what happens in this respect, and take effective steps with the State authorities to prevent renewed alienation of tribal land.

15. NGOs cannot be expected to be fully effective and up-to-date in their efforts, unless they are kept informed about changes in the Government policies, procedures, rules, facilities.

It is for the official departments to see that this is done. This can take place via the Podu Cell which can pass down the information to the NGOs. It also is desirable that at District level, interaction between Government agencies and NGOs engaged in rehabilitation of shifting cultivators, be very intensive and they meet each other every two or three months in an informal manner.

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- | | |
|----------------------------|---|
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| 2. Mr MC Das | NIPDIT, Phulbani |
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| 47. Mr LK Patnaik | : Director, Social Forestry Project |
| 48. Mr S Bose | : Joint Director,
Social Forestry Project |
| 49. Mr MF Ahmed | Regional Joint Director,
Social Forestry Project |
| 50. Mr CG Mishra | Conservator of Forest,
Working Plan Circle, Orissa |
| 51. Mr M Sunil Kumar | Lecturer, NISWASS, Bhubaneswar |
| 52. Mr Hemant Nayak | Gumusar Mahila Sangathan,
Phulbani |
| 53. Mr A Lugun, IFS | : Government of India |
| 54. Prof Radha Mohan | : SAMBHAV, Puri |
| 55. Ms Binodini Hota | Women's Association for
Service & Employment, Sambalpur |

- | | |
|--------------------------------|--|
| 56. Mr Manoj Kr Pradhan | : CPSW, Bhubaneswar |
| 57. Dr Ananta Sahoo | : THRTI, Bhubaneswar |
| 58. Fr Romuald D'Souza | : Xavier Institute of Management,
Bhubaneswar |
| 59. Fr MVd Bogaert sj | CENDERET, Xavier Institute of
Management, Bhubaneswar |
| 60. Prof SP Das | CENDERET, Xavier Institute of
Management, Bhubaneswar |
| 61. Dr Latha Ravindran | CENDERET, Xavier Institute of
Management, Bhubaneswar |
| 62. Fr Paul Fernandes sj | Xavier Institute of Management,
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| 63. Ms Bharati Ray | CENDERET, Xavier Institute of
Management, Bhubaneswar |
| 64. Ms Arati Padhee | CENDERET, Xavier Institute of
Management, Bhubaneswar |
| 65. Ms Bonani Samall | CENDERET, Xavier Institute of
Management, Bhubaneswar |
| 66. Mr Sudhanshu Shekhar Singh | CENDERET, Xavier Institute of
Management, Bhubaneswar |
| 67. Mr Rajesh Mishra | CENDERET, Xavier Institute of
Management, Bhubaneswar |
| 68. Mr Prabhakar Senapati | CENDERET, Xavier Institute of
Management, Bhubaneswar |
| 69. Mr DN Rao | REALS, Dharmalaxmipuram |

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I. Official Documents

1. National Forest Policy 1988.
2. D.O. from the Secretary, Environment & Forests, Government of India, NO : 6-21/89-FP, dated 1st June 1990.
3. Extracts from 'Approach to the Eighth Five Year Plan 1990-95'.
4. Government of Orissa, Forest, Fisheries & Animal Husbandry Department Resolutions of 1.8.88 and 11.12.90.

II. "How to do it" Documents

5. Drought Proofing, through Chakriya Vikas Pranali.
6. Sloping Agricultural Land Technology (SALT I, II, III). -
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III. HRD for Alternatives to Shifting Cultivation, Extracts from the Working Paper

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APPENDIX 1

GOVERNMENT OF INDIA

No. 3-1/86-FP

Ministry of Environment and Forests
(Department of Environment, Forests & Wildlife)

**Paryavaran Bhavan, CGO Complex,
Lodi Road, New Delhi-110 003**

Dated the 7th December, 1988

RESOLUTION

National Forest Policy, 1988

1. Preamble

1.1. In Resolution No. 13/52-F, dated the 12th May, 1952, the Government of India in the erstwhile Ministry of Food and Agriculture enunciated a Forest Policy to be followed in the management of State Forests in the country. However, over the years, forests in the country have suffered serious depletion. This is attributable to relentless pressures arising from ever-increasing demand for fuelwood, fodder and timber, inadequacy of protection measures; diversion of forest lands to non-forest uses without ensuring compensatory afforestation and essential environmental safeguards; and the tendency to look upon forests as revenue earning resource. The need to review the situation and to evolve, for the future, a new strategy of forest conservation has become imperative. Conservation includes preservation, maintenance, sustainable utilisation, restoration, and enhancement of the natural environment. It has thus become necessary to review and revise the National Forest Policy.

2. Basic Objectives

2.1. The basic objectives that should govern the National Forest Policy are the following :

- Maintenance of environmental stability through preservation and, where necessary, restoration of the ecological balance that has been adversely disturbed by serious depletion of the forests of the country.

- Conserving the natural heritage of the country by preserving the remaining natural forests with the vast variety of flora and fauna, which represent the remarkable biological diversity and genetic resources of the country.
- Checking soil erosion and denudation in the catchment areas of rivers, lakes, reservoirs in the interest of soil and water conservation, for mitigating floods and droughts and for the retardation of siltation of reservoirs.
- Checking the extension of sand-dunes in the desert areas of Rajasthan and along the coastal tracts.
- Increasing substantially the forest/tree cover in the country through massive afforestation and social forestry programmes, especially on all denuded, degraded and unproductive lands.
- Meeting the requirements of fuelwood, fodder, minor forest produce and small timber of the rural and tribal populations.
- Increasing the productivity of forests to meet essential national needs.
- Encouraging efficient utilisation of forest produce and maximising substitution of wood.
- Creating a massive people's movement with the involvement of women, for achieving these objectives and to minimise pressure on existing forests.

2.2. The principal aim of Forest Policy must be to ensure environmental stability and maintenance of ecological balance including atmospheric equilibrium which are vital for sustenance of all lifeforms, human, animal and plant. The derivation of direct economic benefit must be subordinated to this principal aim.

3. Essentials of Forest Management

3.1. Existing forests and forest lands should be fully protected and their productivity improved. Forest and vegetal cover should be increased rapidly on hill slopes, in catchment areas of rivers, lakes and reservoirs and ocean shores and on semi-arid, arid and desert tracts.

3.2. Diversion of good and productive agricultural lands to forestry should be discouraged in view of the need for increased food production.

3.3. For the conservation of total biological diversity, the network of national parks, sanctuaries, biosphere reserves and other protected areas should be strengthened and extended adequately.

3.4. Provision of sufficient fodder, fuel and pasture, specially in areas adjoining forest, is necessary in order to prevent depletion of forests beyond the sustainable limit. Since fuelwood continues to be the predominant source of energy in rural areas, the programme of afforestation should be intensified with special emphasis on augmenting fuelwood production to meet the requirement of the rural people.

3.5. Minor forest produce provides sustenance to tribal population and to other communities residing in and around the forests. Such produce should be protected, improved and their production enhanced with due regard to generation of employment and income.

4. Strategy

4.1. AREA UNDER FORESTS

The national goal should be to have a minimum of one-third of the total land area of the country under forest or tree cover. In the hills and in mountainous regions, the aim should be to maintain two-third of the area under such cover in order to prevent erosion and land degradation and to ensure the stability of the fragile eco-system.

4.2. AFFORESTATION, SOCIAL FORESTRY & FARM FORESTRY

4.2.1. A massive need-based and time-bound programme of afforestation and tree planting, with particular emphasis on fuelwood and fodder development, on all degraded and denuded lands in the country, whether forest or non-forest land, is a national imperative.

4.2.2. It is necessary to encourage the planting of trees alongside of roads, railway lines, rivers and streams and canals, and on other unutilised lands under State/corporate, institutional or private ownership. Green belts

should be raised in urban/industrial areas as well as in arid tracts. Such a programme will help to check erosion and desertification as well as improve the micro-climate.

4.2.3. Village and community lands, including those on foreshores and environs of tanks, not required for other productive uses, should be taken up for the development of tree crops and fodder resources. Technical assistance and other inputs necessary for initiating such programmes should be provided by the Government. The revenues generated through such programmes should belong to the panchayats where the lands are vested in them; in all other cases, such revenues should be shared with the local communities in order to provide an incentive to them. The vesting, in individuals, particularly from the weaker sections (such as landless labour, small and marginal farmers, scheduled castes, tribals, women) of certain ownership rights over trees, could be considered, subject to appropriate regulations; beneficiaries would be entitled to usufruct and would in turn be responsible for their security and maintenance.

4.2.4. Land laws should be so modified wherever necessary so as to facilitate and motivate individuals and institutions to undertake tree-farming and grow fodder plants, grasses and legumes on their own land. Wherever possible, degraded lands should be made available for this purpose either on lease or on the basis of a tree-patta scheme. Such leasing of the land should be subject to the land grant rules and land ceiling laws. Steps necessary to encourage them to do so must be taken. Appropriate regulations should govern the felling of trees on private holding.

4.3. MANAGEMENT OF STATE FORESTS

4.3.1. Schemes and projects which interfere with forests, that clothe steep slopes, catchments of rivers, lakes, and reservoirs, geologically unstable terrain and such other ecologically sensitive areas should be severely restricted. Tropical rain/moist forests, particularly in areas like Arunachal Pradesh, Kerala, Andaman & Nicobar Islands, should be totally safeguarded.

4.3.2. No forest should be permitted to be worked without the Government having approved the management plan, which should be in a

prescribed format and in keeping with the National Forest Policy. The Central Government should issue necessary guidelines to the State Government in this regard and monitor compliance.

4.3.3. In order to meet the growing needs for essential goods and services which the forests provide, it is necessary to enhance forest cover and productivity of the forests through the application of scientific and technical inputs. Production forestry programmes, while aiming at enhancing the forest cover in the country, and meeting national needs, should also be oriented to narrowing, by the turn of the century, the increasing gap between demand and supply of fuelwood. No such programme, however, should entail clear-felling of adequately stocked natural forests. Nor should exotic species be introduced, through public or private sources, unless long-term scientific trials undertaken by specialists in ecology, forestry and agriculture have established that they are suitable and have no adverse impact on native vegetation and environment.

4.3.4. Rights and Concessions

4.3.4.1. The rights and concessions, including grazing, should always remain related to the carrying capacity of forests. The capacity itself should be optimised by increased investment, silvicultural research and development of the area. Stall-feeding of cattle should be encouraged. The requirements of the community, which cannot be met by the rights and concessions so determined, should be met by development of social forestry outside the reserved forests.

4.3.4.2. The holders of customary rights and concessions in forest areas should be motivated to identify themselves with the protection and development of forests from which they derive benefits. The rights and concessions from forests should primarily be for the bonafide use of the communities living within and around forest areas, specially the tribals.

4.3.4.3. The life of tribals and other poor living within and near forests revolves around forests. The rights and concessions enjoyed by them should be fully protected. Their domestic requirements of fuelwood, fodder, minor forest produce and construction timber should be the first charge on

forest produce. These and substitute materials should be made available through conveniently located depots at reasonable prices.

4.3.4.4. Similar consideration should be given to scheduled castes and other poor living near forests. However, the area which such consideration should cover, would be determined by the carrying capacity of the forests.

4.3.4.5. Wood is in short supply. The long-term solution for meeting the existing gap lies in increasing the productivity of forests, but to relieve the existing pressure on forests for the demands of railway sleepers, construction industry (particularly in the public sector), furniture and panelling, mine-pitprops, paper and paper board etc. substitution of wood needs to be taken recourse to. Similarly, on the front of domestic energy, fuelwood needs to be substituted as far as practicable with alternate sources like biogas, LPG and solar energy. Fuel-efficient "Chulhas" as a measure of conservation of fuelwood need to be popularised in rural areas.

4.4. DIVERSION OF FOREST LANDS FOR NON-FOREST PURPOSES

4.4.1. Forest land or land with tree cover should not be treated merely as a resource readily available to be utilised for various projects and programmes, but as a national asset which requires to be properly safeguarded for providing sustained benefits to the entire community. Diversion of forest land for any non-forest purpose should be subject to the most careful examinations by specialists from the standpoint of social and environmental costs and benefits. Construction of dams and reservoirs, mining and industrial development and expansion of agriculture should be consistent with the needs for conservation of trees and forests. Projects which involve such diversion should at least provide in their investment budget, funds for regeneration/compensatory afforestation.

4.4.2. Beneficiaries, who are allowed mining and quarrying in forest land and in land covered by trees should be required to repair and re-vegetate the area in accordance with established forestry practices. No mining lease should be granted to any party, private or public, without a proper mine management plan appraised from the environmental angle and enforced by adequate machinery.

4.5. WILDLIFE CONSERVATION

Forest Management should take special care of the needs of wildlife conservation, and forest management plans should include prescriptions for this purpose. It is specially essential to provide for "corridors" linking the protected areas in order to maintain genetic continuity between artificially separated sub-sections of migrant wildlife.

4.6. TRIBAL PEOPLE AND FORESTS

Having regard to the symbiotic relationship between the tribal people and forests, a primary task of all agencies responsible for forest management, including the forest development corporations should be to associate the tribal people closely in the protection, regeneration and development of forests as well as to provide gainful employment to people living in and around the forest. While special attention to the following :—

- One of the major causes for degradation of forest is illegal cutting and removal by contractors and their labour. In order to put an end to this practice, contractors should be replaced by institutions such as tribal cooperatives, labour cooperatives, government corporations, etc. as early as possible;
- Protection, regeneration and optimum collection of minor forest produce along with institutional arrangements for the marketing of such produce;
- Development of forest villages on par with revenue villages;
- Family oriented schemes for improving the status of tribal beneficiaries; and
- Undertaking integrated area development programmes to meet the needs of the tribal economy in and around the forest areas, including the provision of alternative sources of domestic energy on a subsidised basis, to reduce pressure on the existing forest areas.

4.7. SHIFTING CULTIVATION

Shifting cultivation is affecting the environment and productivity of land adversely. Alternative avenues of income, suitably harmonised with the right land use practices, should be devised to discourage shifting cultivation.

Efforts should be made to contain such cultivation within the area already affected, by propagating improved agricultural practices. Area already damaged by such cultivation should be rehabilitated through social forestry and energy plantations.

4.8. DAMAGE TO FORESTS FROM ENCROACHMENTS, FIRES AND GRAZING

4.8.1. Encroachment on forest lands has been on the increase. This trend has to be arrested and effective action taken to prevent its continuance. There should be no regularisation of existing encroachments.

4.8.2. The incidence of forest fires in the country is high. Standing trees and fodder are destroyed on a large scale and natural regeneration annihilated by such fires. Special precautions should be taken during the fire season. Improved and modern management practices should be adopted to deal with forest fires.

4.8.3. Grazing in forest areas should be regulated with the involvement of the community. Special conservation areas, young plantations and regeneration areas should be fully protected. Grazing and browsing in forest areas need to be controlled. Adequate grazing fees should be levied to discourage people in forest areas from maintaining large herds of non-essential livestock.

4.9. FOREST BASED INDUSTRIES

The main considerations governing the establishment of forest-based industries and supply of raw material to them should be as follows :

- As far as possible, a forest-based industry should raise the raw material needed for meeting its own requirements, preferably by establishment of a direct relationship between the factory and the individuals who can grow the raw material by supporting the individuals with inputs including credit, constant technical advice and finally harvesting and transport services.
- No forest-based enterprise, except that at the village or cottage level, should be permitted in the future unless it has been first cleared after a careful scrutiny with regard to assured availability of raw material. In any case, the fuel, fodder and timber requirements of the local population should not be sacrificed for this purpose.

- Forest based industries must not only provide employment to local people on priority, but also involve them fully in raising trees and raw material.
- Natural forests serve as a gene pool resource and help to maintain ecological balance. Such forests will not, therefore, be made available to industries for undertaking plantation and for any other activities.
- Farmers, particularly small and marginal farmers would be encouraged to grow, on marginal/degraded lands available with them, wood species required for industries. These may also be grown along with fuel and fodder species on community lands not required for pasture purposes, and by Forest department/corporations on degraded forests, not earmarked for natural regeneration.
- The practice of supply of forest produce to industry at concessional prices should cease. Industry should be encouraged to use alternative raw materials. Import of wood and wood products should be liberalised.
- The above considerations will however, be subject to the current policy relating to land ceiling and land-laws.

4.10. FOREST EXTENSION

Forest conservation programme cannot succeed without the willing support and cooperation of the people. It is essential, therefore, to inculcate in the people, a direct interest in forests, their development and conservation, and to make them conscious of the value of trees, wild life and nature in general. This can be achieved through the involvement of educational institutions, right from the primary stage. Farmers and interested people should be provided opportunities through institutions like Krishi Vigyan Kendras, Trainers' Training Centres to learn agrisilvicultural and silvicultural techniques to ensure optimum use of their land and water resources. Short term extension courses and lectures should be organised in order to educate farmers. For this purpose, it is essential that suitable programmes are propagated through mass media, audio-visual aids and the extension machinery.

4.11. FORESTRY EDUCATION

Forestry should be recognised both as a scientific discipline as well as a profession. Agriculture universities and institutions dedicated to the development of forestry education should formulate curricula and courses for imparting academic education and promoting post-graduate research and professional excellence, keeping in view the manpower needs of the country. Academic and professional qualifications in forestry should be kept in view for recruitment to the Indian Forest Service and the State Forest Service. Specialised and orientation courses for developing better management skills by inservice training need to be encouraged, taking into account the latest development in forestry and related disciplines.

4.12. FORESTRY RESEARCH

With the increasing recognition of the importance of forests for environmental health, energy and employment, emphasis must be laid on scientific forestry research, necessitating adequate strengthening of the research base as well as new priorities for action. Some broad priority areas of research and development needing special attention are :—

- i) Increasing the productivity of wood and other forest produce per unit of area per unit time by the application of modern scientific and technological methods.
- ii) Revegetation of barren/marginal/waste/mined lands and watershed areas.
- iii) Effective conservation and management of existing forest resources (mainly natural forest eco-systems).
- iv) Research related to social forestry for rural/tribal development.
- v) Development of substitutes to replace wood and wood products.
- vi) Research related to wildlife and management of national parks and sanctuaries.

4.13. PERSONNEL MANAGEMENT

Government policies in personnel management for professional foresters and forest scientists should aim at enhancing their professional competence and status and attracting and retaining qualified and motivated personnel, keeping in view particularly the arduous nature of duties they have to perform, often in remote and inhospitable places.

4.14. FOREST SURVEY AND DATA BASE

Inadequacy of data regarding forest resources is a matter of concern because this creates a false sense of complacency. Priority needs to be accorded to completing the survey of forest resources in the country on scientific lines and to updating information. For this purpose, periodical collection, collation and publication of reliable data on relevant aspects of forest management needs to be improved with recourse to modern technology and equipment.

4.15. LEGAL SUPPORT AND INFRASTRUCTURE DEVELOPMENT

Appropriate legislation should be undertaken, supported by adequate infrastructure, at the Centre and State levels in order to implement the Policy effectively.

4.16. FINANCIAL SUPPORT FOR FORESTRY

The objectives of this revised Policy cannot be achieved without the investment of financial and other resources on a substantial scale. Such investment is indeed fully justified considering the contribution of forests in maintaining essential ecological processes and life-support systems and in preserving genetic diversity. Forests should not be looked upon as a source of revenue. Forests are a renewable natural resource. They are a national asset to be protected and enhanced for the well-being of the people and the Nation.

(K. P. Geethakrishnan)
Secretary to the Government of India

APPENDIX 2

No. 6-21/89-F.P.
GOVERNMENT OF INDIA

Ministry of Environment and Forests
Department of Environment, Forests and Wildlife
Paryavaran Bhavan, C.G.O. Complex, B-Block

Lodi Road, New Delhi
Dated : 1st June, 1990

To

The Forest Secretaries
(All States/UTs)

Subject : Involvement of village communities and voluntary agencies for regeneration of degraded forest lands.

Sir,

The National Forest Policy, 1988 envisages people's involvement in the development and protection of forests. The requirements of fuelwood, fodder and small timber such as house-building material, of the tribals and other villagers living in and near the forests, are to be treated as first charge on forest produce. The Policy document envisages it as one of the essentials of forest management that the forest communities should be motivated to identify themselves with the development and protection of forests from which they derive benefits.

2. In a D.O. letter, No. 1/1/88-TMA dated 13th January, 1989 to the Chief Secretary of your State, the need for working out the modalities for giving to the village communities, living close to the forest land, usufructory benefits to ensure their participation in the afforestation programme, was emphasized by Shri K.P. Geethakrishnan, the then Secretary (Environment and Forests).

3. Committed voluntary agencies/NGOs, with proven track record, may prove particularly well suited for motivating and organising village communities for protection, afforestation and development of degraded

forest land, especially in the vicinity of habitations. The State Forest Departments/Social Forestry Organisations ought to take full advantage of their expertise and experience in this respect for building up meaningful people's participation in protection and development of degraded forest lands. The voluntary agencies/NGOs may be associated as interface between State Forest Departments and the local village communities for revival, restoration and development of degraded forests in the manner suggested below :—

- (i) The programme should be implemented under an arrangement between the Voluntary Agency/NGO, the village community (beneficiaries) and the State Forest Department.
- (ii) No ownership or lease rights over the forest land should be given to the beneficiaries or to the Voluntary Agency/NGO. Nor should the forest land be assigned in contravention of the provisions contained in the Forest (Conservation) Act, 1980.
- (iii) The beneficiaries should be entitled to a share in usufructs to the extent and subject to the conditions prescribed by the State Government in this behalf. The Voluntary Agency/NGO should not be entitled to usufructory benefits.
- (iv) Access to forest land and usufructory benefits should be only to the beneficiaries who get organised into a village institution, specifically for forest regeneration and protection. This could be the Panchayat or the Cooperative of the village, with no restriction on membership. It could also be a Village Forest Committee. In no case should any access or tree pattas be given to individuals.
- (v) The beneficiaries should be given usufructs like grasses, lops and tops of branches, and minor forest produce. If they successfully protect the forests, they may be given a portion of the proceeds from sale of trees when they mature. (The Government of West Bengal has issued orders to give 25% of the sale proceeds to the Village Forest Protection Committees. Similar norms may be adopted by other States).
- (vi) Areas to be selected for the programme should be free from the claims (including existing rights, privileges, concessions) of any

person who is not a beneficiary under the scheme. Alternatively, for a given site the selection of beneficiaries should be done in such a way that any one who has a claim to any forest produce from the selected site is not left out without being given full opportunity of joining.

- (vii) The selected site should be worked in accordance with a Working Scheme, duly approved by the State Government. Such scheme may remain in operation for a period of 10 years and revised/renewed after that. The Working Scheme should be prepared in consultation with the beneficiaries. Apart from protection of the site, the said Scheme may prescribe requisite operations, eg. inducement to natural regeneration of existing root stock, seeding, gap filling, and wherever necessary, intensive planting, soil-moisture conservation measures etc. The Working Scheme should also prescribe other operations, eg. fire-protection, maintenance of boundaries, weeding, tending, cleaning, thinning etc.
- (viii) For raising nurseries, preparing land for planting and protecting the trees after planting, the beneficiaries should be paid by the Forest Department from the funds under the social forestry programme. However, the village community may obtain funds from other Government agencies and sources for undertaking these activities.
- (ix) It should be ensured that there is no grazing at all in the forest land protected by the village community. Permission to cut and carry grass free of cost should be given so that stall feeding is promoted.
- (x) No agriculture should be permitted on the forest land.
- (xi) Along with trees for fuel, fodder and timber, the village community may be permitted to plant such fruit trees as would fit in with the overall scheme of afforestation, such as aonla, imli, mango, mahua, etc. as well as shrubs, legumes and grasses which would meet local needs, help soil and water conservation, and enrich the degraded soils/land. Even indigenous medicinal plants may be grown according to the requirement and preference of beneficiaries.

- (xii) Cutting of trees should not be permitted before they are ripe for harvesting. The forest department also should not cut the trees on the forest land being protected by the village communities except in the manner prescribed in the Working Scheme. In case of emergency needs, the village communities should be taken into confidence.
- (xiii) The benefit of people's participation should go to the village communities and not to commercial or other interests which may try to derive benefit in their names. The selection of beneficiaries should therefore, be done from only those families which are willing to participate through their personal efforts.
- (xiv) The Forest Department should closely supervise the works. If the beneficiaries and/or the Voluntary Agency/NGO fail or neglect to protect the area from grazing, encroachment or do not perform the operations prescribed in the Working Scheme in a satisfactory manner, the usufructory benefits should be withdrawn without paying compensation to anyone for any work that might have been done prior to it. Suitable provisions in the *Memorandum of Understanding (MOU)* for this purpose should be incorporated.

Yours faithfully,

(Mahesh Prasad)

Secretary to the Government of India

Copy for information and necessary action to :-

1. Principal Chief Conservator of Forests/Chief Conservator of Forests (All States/UTs).
2. Additional Secretary, National Wasteland Development Board, Ministry of Environment and Forests, New Delhi.
3. Chief Conservator of Forests (Central) of all Regional Offices located at : Bhubaneswar, Bangalore, Bhopal, Shillong, Lucknow, Chandigarh.

4. All DIGFs including N.W.D.B., New Delhi.
5. All Officers of the Ministry of Environment and Forests.

(K. M. Chadha)

Joint Secretary to the Government of India

Copy for information to the :-

1. Secretary (Co-ordination), Cabinet Secretariat, Rashtrapati Bhavan, New Delhi.
2. Secretary, Ministry of Welfare, New Delhi.
3. Secretary, Department of Rural Development, New Delhi.

(K. M. Chadha)

Joint Secretary to the Government of India

APPENDIX 3

RELEVANT EXTRACTS

from

APPROACH TO THE EIGHTH FIVE YEAR PLAN 1990-95

1. On Tribal People

55. The resource base and the social and cultural heritage of our Scheduled Tribe population is getting eroded through a combination of development interventions, commercial exploitation and ineffective legal and administrative systems. The trend needs to be arrested as it can undermine the very survival of these communities. There is growing articulation and recognition of the fact that mega projects in irrigation, power and transport often disrupt the life and environment of a large number of Scheduled Tribal families, while the benefits of these projects mainly accrue to the populations in the plains. Measures for relief and rehabilitation in such cases have been neither imaginatively conceived nor wholeheartedly implemented. It is necessary that the planning and administrative machinery at different levels shows greater awareness and sensitivity to this dimension of development and takes steps to ensure that the lives of Scheduled Tribes are not disrupted in the name of national progress. More positively, programmes need to be devised with the involvement of the Scheduled Tribes themselves in the light of their own order of priorities to remove economic, educational and social disparities to which they are subject. The lines of action here would include, besides access to minimum social services, assistance in scientific resource conservation, construction of small water harvesting and storage systems, restoration of their traditional rights to forest produce and direct links with market and strengthening of their traditional community organisations.

2. On Environment and Forests

78. One consequence of pursuing development and adopting technologies without a coherent framework of social objectives has been large scale ecological degradation and erosion of the natural resource base. Deforestation, desertification, pollution of the atmosphere and of the rivers, fast depletion of water tables, and destruction of top soil have all affected the very survival of our people. A great deal of public consciousness and

debate have been generated on these issues. Several activist and concerned citizen groups have been focussing attention on what seems like a constantly deteriorating situation. Improvements in the standards and quality of life of the people have to be based on sustenance of life support systems through conservation and regeneration of the natural resource base. The present generation owes this not only to itself, but also to future generations and to myriad other species with which its survival is organically and irrevocably linked. What is needed is an ecological imagination that informs development thinking.

79. It will not be enough so assert this. There should be more rigorous scrutiny of the environmental impact of every development scheme, and ecologically sustainable development accepted as an end in itself. Mechanisms will have to be found by which the ecological consequences of development schemes become known to the public through an open door information system, the responses and concerns of affected people are discussed openly with the relevant authorities, and adequate safeguards to protect their interests built into the project before it is approved. And there will be need for sanctions against those responsible for violating ecological norms and 'guidelines'.

80. To sustain social and economic development, especially in rural areas, steps are necessary to protect the remaining forests and to enhance the biomass resources, especially through development of wastelands. Realisation of the full potential of forests and wastelands in a sustainable manner which has substantial employment potential would be a key element to the revitalisation of the rural economy. Sustainable management of forests would require an institutional framework which would facilitate people's active involvement. Traditionally, management of forest resources has sought to exclude the people, and the emphasis was on policing the forests to prevent biotic interferences. Predictably, this did not have the desired effects and has alienated the people. This has been particularly true in respect of the tribal populations who have been traditionally dependent on minor forest produce. Indeed, they have a national interest in protecting trees. Every efforts needs to be made to promote grassroot level participation in this task as part of a larger approach to the local area planning and development.

APPENDIX 4

GOVERNMENT OF ORISSA FOREST, FISHERIES & A.H. DEPARTMENT

RESOLUTION

Dated, Bhubaneswar, the 1st August, 1988.

No : 10F (Pron)-47/88/ 1 7 2 4 0 /FFAH.,

Sub : Protection of Reserve Forest Areas by the Community.

The question of involving village communities for effective protection and conservation of Reserve Forests was, for sometime past, under the active consideration of Government. After careful appraisal, Government are of the view that the task of protecting forests is so urgent and so enormous that the rural community should be fully and actively involved in it. Accordingly, it has been decided that the following scheme of involving the rural community will be implemented in the State. Under this scheme, villagers will be assigned a specific role in the protection of Reserve Forests adjoining their villages and will, in return, be granted, under Section 24 of the Orissa Forest Act, 1972, certain concessions in the matter of meeting their *bonafide* requirement of firewood and small timber.

(1) The concerned Divisional Forest Officer shall assign the peripheral Reserve Forest areas to the adjoining villages according to the compartment line. The area in one compartment may cover one or more villages. Wherever the compartment line does not exist, natural boundary like nalla, bridges, etc., will form the demarcation point. Reserve Forest area notified under Section 18(1) of the wildlife (Protection) Act, 1972 will, however, be excluded from the purview of the assignment.

(2) The concerned D. F. O. shall constitute a Forest Protection Committee for each of the assigned villages. The Committee shall comprise the Sarpanch of the concerned Gram Panchayat, the Ward Members belonging to the village, the local Forester, Revenue Inspector, V.L.W, and such other persons of the said village not exceeding three as may be nominated by the concerned Grama Panchayat. The total number of the members of the Committee shall be atleast eight which shall, as far as possible, include persons belonging to the Scheduled Castes or Tribes,

women and landless categories. The Sarpanch of the Gram Panchayat and the local Forester shall be the Chairman and Convenor of the Committee respectively.

(3) The villages, shall through the Forest Protection Committee, furnish an undertaking to the concerned D.F.O. for proper up-keep and maintenance of the assigned Reserve Forest areas. The assigned villages shall be responsible for fire protection and prevention of felings, thefts of forest produce and encroachments in the assigned Reserve Forest areas. The Forest Protection Committee shall be responsible for ensuring performance of the above functions by villagers of the assigned villages.

(4) For performance of the duties enumerated in para-3, the villagers shall be entitled to obtain their *bonafide* requirement of small timber and firewood for house-hold consumption only and not for sale or barter. The Forest Protection Committee shall be responsible for proper distribution of small timber and firewood among the house-holds, keeping in view the following guidelines :-

(a) The minimum requirements of the house-holds for building and agriculture purposes should be worked out by the Committee and the distribution made accordingly on the basis of available produce, before meeting their demand for other purposes.

(b) As regards supply of firewood, the same shall be apportioned among the households keeping in view their real requirement as far as possible.

(5) Small timber and firewood shall be removed from the assigned Reserve Forest areas only in accordance with a permit issued by the two members of the Committee authorised for the purpose. The permit issued as above shall be valid only within the limits of the village boundary to which the household belongs.

(6) The above scheme of assignment will come into force with effect from 2.10.88. In the intervening period, the D.F.Os. will assign specific Reserve Forest areas in the periphery to the adjoining villages and constitute the Forest Protection Committee.

ORDER

Ordered that the Resolution be published in the Extraordinary issue of the Orissa Gazette.

By Order of the Governor
P. K. Mohanty
Secretary to Government.

M. No : 17241/FFAH., Dated : 1.8.1988

Copy forwarded to All Departments of Government/Principal Chief Conservator of Forests, Orissa/All Revenue Divisional Commissioners/All Collectors for information & necessary action.

Sd/- **J. K. Mohapatra**
Joint Secretary to Government.

M. No : 17242/FFAH., Dated : 1.8.1988

Copy forwarded to All Conservator of Forests/All Divisional Forest Officers (Territorial) for information & necessary action. The Divisional Forest Officers are requested to assign specific Reserve Forest areas in the periphery to the adjoining villages and constitute a Forest Protection Committee by the end of September, 1988 without fail.

Sd/- **J. K. Mohapatra**
Joint Secretary to Government.

M. No : 17243/FFAH., Dated : 1.8.1988

Copy forwarded to the Director of Printing, Stationery & Publications, Orissa, Cuttack with the request to publish it in the extraordinary issue of the Orissa Gazette. He is requested to send '200' copies of it to this Department.

Sd/- **J. K. Mohapatra**
Joint Secretary to Government.

GOVERNMENT OF ORISSA
FOREST, FISHERIES & A.H. DEPARTMENT

RESOLUTION

Dated, Bhubaneswar the 13th October 1988

No : 10F (Pron)-47/88/ 23638/FFAH

Sub : Protection of Reserve Forest Areas by the Community.

A scheme for involving the rural community in the task of protecting reserve forests throughout the State has been enunciated by the Government in the Resolution No. 17240-FFAH., Dated, 1.8.88. Para-2 of the aforesaid Resolution envisages constitution of a village-level Forest Protection Committee comprising the Sarpanch of the concerned Gram Panchayat, the Ward Members belonging to the village and at the most 3 other persons of the village, to be nominated by the concerned Gram Panchayat, as the non-official members. In addition, the local Forester, Revenue Inspector and the V. L. W. are to be included as official members.

(2) After careful re-appraisal, it is now felt by the Government that the Committee should be constituted in consultation with the local villagers.

(3) Therefore, in partial modification of para-2 of the aforesaid Resolution, it has been decided that the non-official members of the village level Forest Protection Committee may be selected by convening a meeting of the concerned villagers. However, the Sarpanch of the concerned Gram Panchayat and the Forester shall be the Chairman and Convenor of the Committee respectively.

ORDER

Ordered that the Resolution be published in the Extraordinary issue of the Orissa Gazette.

By Order of the Governor
P. K. Mohanty
Secretary to Government.

M. No : 23639/FFAH., Dt. 13.10.88

Copy forwarded to All Departments of Government/Principal Chief Conservator of Forests, Orissa/All Revenue Divisional Commissioners/All Collectors for information & necessary action.

Sd/- J. K. Mohapatra
Joint Secretary to Government.

M. No : 23640/FFAH., Dated : 13.10.88

Copy forwarded to All Conservators of Forests/All Divisional Forest Officers (Territorial) for information & necessary action.

Sd/- J. K. Mohapatra
Joint Secretary to Government.

M, No : 23641/FFAH., Dated : 13.10.88

Copy forwarded to the Director of Printing, Stationery & Publications, Orissa, Cuttack with request to publish it in the extra-ordinary issue of the Orissa Gazette. He is requested to send 200 copies of it to this Department.

Sd/- J. K. Mohapatra
Joint Secretary to Government.

GOVERNMENT OF ORISSA
FOREST, FISHERIES & A.H. DEPARTMENT

No : 1 OF (Pron)-47/88/ 27328/FFAH., Dated : 14.12.88

From :

Shri J. K. Mohapatra, IAS,
Joint Secretary to Government.

To

The Principal Chief Conservator of Forests,
Orissa, Cuttack.

Sub : Protection of reserve forest areas by the community.

Sir,

I am directed to refer to your letter No. 23370/9F-Legal-65/88., dated 1st. December, 1988 and to say that the adjoining villagers assigned the functions of protection, up-keep and maintenance of the peripheral reserve forest areas would be entitled to obtain their *bonafide* requirement of small timber and firewood for house-hold consumption free of cost. They need not pay royalty as prescribed in the 'Rules on Schedule of Rates for Forest Produces in Orissa, 1977'. This clarification may be brought to the notice of all concerned.

Yours faithfully,

Sd/- J. K. Mohapatra
Joint Secretary to Government.

GOVERNMENT OF ORISSA
FOREST, FISHERIES & A.H. DEPARTMENT

No. 1 OF (Pron) 4/90/29525/FFAH., Bhubaneswar, Dated, 11.12.1990

RESOLUTION

Sub : Protection of Reserved Forest and Protected Forest Areas by the Community and Enjoyment of certain usufructs by the Community.

The question of involving village community for effective protection and conservation of Reserved Forest and Protected Forest was for some time past, under active consideration of Government. After careful consideration, Government are of the view that the task of protecting forest is so urgent and enormous that the community should be fully and actively involved in it. Accordingly, it has been decided that the following scheme of involving the rural community will be implemented in the State. Under this Scheme, villagers will be assigned a specific role in the protection of Reserved Forest and Protected Forests adjoining their villages and will, in return, be granted under Section 24 of the Orissa Forest Act, 1972 certain concessions in Reserved Forest and taking into account prevalent practice and rights, if any, in respect of Protected Forest in the matter of meeting their *bonafide* requirement of firewood and small timber.

(1) The concerned Divisional Forest Officer shall assign the peripheral Reserved Forest and Protected Forest area to the adjoining villages according to the compartment line. The area in one compartment may cover one or more villages. Wherever the compartment line does not exist, natural boundary like nalla, bridges, etc. will form the demarcation point. Reserve Forest areas notified under Section 18 (1) of the Wild Life Protection Act 1972 will, however be excluded from the purview of the assignment.

(2) The concerned Divisional Forest Officer shall constitute a Forest Protection Committee for each of the concerned villages in consultation with the local villagers. The Committee shall comprise the Sarpanch of the concerned Gram Panchayat, the Ward Members belonging to the village, the local Forester, Revenue Inspector, V.L.W. and such other non-official members of the village to be selected by convening a meeting of the concerned villagers. The total number of the members of the Committee

shall be atleast 8 which shall, as far as possible, include women and persons belonging to the S.C. or S.T. and the landless, categories. The Sarpanch of the Gram Panchayat and the local Forester shall be the Chairman and convenor of the Committee respectively.

(3) The villagers shall, through the Forest Protection Committee, furnish an undertaking to the concerned Divisional Forest Officer for proper up-keep and maintenance of the assigned Reserved Forest and Protected Forest areas. The assigned villages shall be responsible for fire fighting and prevention of illicit fellings, theft of forest produce and encroachment in the assigned Reserved Forest and Protected Forest areas. The Forest Protection Committee shall be responsible for ensuring performance of the above functions by villagers of the assigned villages.

(4) For performance of the duties enumerated in para-3, the villagers shall be entitled to obtain their *bonafide* requirement of small timber and firewood for house-hold consumption only and not for sale or barter. The Forest Protection Committee shall be responsible for proper distribution of small timber and firewood among the house-holds, keeping in view the following guidelines.

(a) The minimum requirements of the house-hold for building and agriculture purposes should be worked out by the Committee and the distribution made accordingly on the basis of available produce, before meeting their demand for other purposes.

(b) As regards supply of firewood, the same shall be apportioned among the households keeping in view their real requirement as far as possible.

(5) Small timber and firewood shall be removed from assigned Reserved Forest areas and Protected Forest areas only in accordance with a permit issued by the two members of the Committee authorised for the purpose. The permit issued as above shall be valid only within the limits of the village boundary to which the household belongs.

(6) This supersedes this Department's Resolution No. 17240/FFAH., dated 1.8.88 and No. 23638/FFAH., dated 13.10.88.

ORDER

Ordered that the Resolution published in the next ordinary issue of the Orissa Gazette.

By Order of the Governor
P. K. Mohanty
Secretary to Government.

Memo No. 29526/FFAH., Bhubaneswar, dated 11.12.90

Copy forwarded to all Departments of Government/Principal Chief Conservator of Forests, Orissa/All Revenue Divisional Commissioner/All Collectors for information and necessary action.

Sd/-
Under Secretary to Government.

Memo No. 29527/FFAH., Bhubaneswar, dated 11.12.90

Copy forwarded to All Conservator of Forests/All Divisional Forest Officers (Territorial) for information and necessary action.

Sd/-
Under Secretary to Government.

Memo No. 29528/FFAH., Bhubaneswar, dated 11.12.90

Copy forwarded to the Director of Printing, Stationery and Publication, Orissa, Cuttack with the request to publish it in the extraordinary issue of the Orissa Gazette. He is requested to send 200 copies of it to this Department.

Sd/-
Under Secretary to Government.

APPENDIX 5

DROUGHT-PROOFING OF DROUGHT-PRONE AREAS

THROUGH

“CHAKRIYA VIKAS PRANALI”

FUNDAMENTALS

1. All protect, All receive, All pay with pride to keep the cycle of Village/School fund and employment moving round the year with no subsequent fund from outside.
2. Using rain as it falls and where it falls, and not permitting even a drop to go outside the village limit as surface flow.
3. Multi-layered planting system to expose unrealised potential of mother earth, rain, sun, land and human brains and bodies.
4. Acceptable sharing system as under :—
 - 10% Kalyan Kosh for other school/villages
 - 30% to students and teachers of Chakriya Vikas Pranali
 - 30% to land owner (Govt./Private)
 - remaining 30% to Village Development Fund.
5. Conversion of basic goods into meaningful Secondary products to promote rural employment right in the village only as far as practicable.
6. Marketing infrastructure.

MECHANICS OF CHAKRIYA VIKAS PRANALI

1. Take village/village tola/school as unit.
2. Select some stipendary students to start with.
3. Arrange some stipend from the working system itself in the Shortest Possible time.

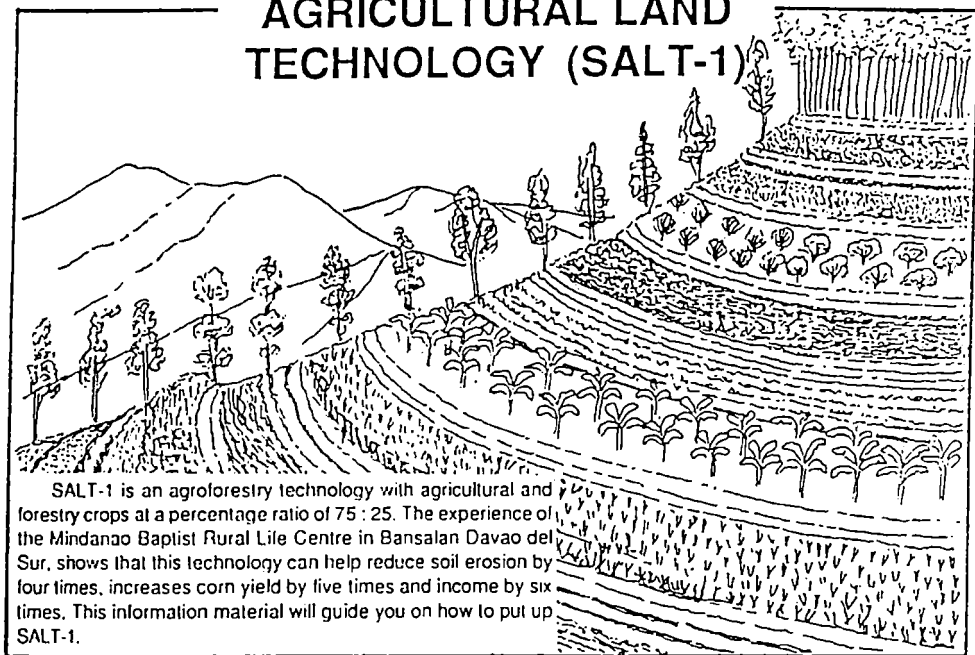
4. Pool land and form a block.
5. Make small plots ($3' \times 3'$ or $5' \times 5'$) with ridges $1'$ to $1\frac{1}{2}'$ high on all sides depending on topography.
6. Plant root, fruit, fuel, fodder, timber, vegetable trees, commercial grasses depending on soil and socio-economic need of the people.
7. Make suitable Nurseries.
8. Make (a) Tanks in series, (b) Tank within tank, (c) Tanks by the side of streams $10'$ deeper than the stream-level.
9. Constitute effective "Sahyogi Samaj".
10. All disputes to be settled right in the villages.
11. Introduce apart from 1:1:1 sharing system, 2:1 and 1:2 (in school).
12. Commonise "300 Pranali" everywhere.
13. Open account system with Social audit.
14. 10% of all emoluments to form part of village-fund
15. Monitor dynamic changes in the attitude of all towards mother-earth, having hidden potency to sustain all

SHRMS—CHAKRIYA VIKAS YOJANA

Dak Bunglow Road,

P.O. Daltonganj-822101 (Palamu) Bihar.

SLOPING AGRICULTURAL LAND TECHNOLOGY (SALT-1)



SALT-1 is an agroforestry technology with agricultural and forestry crops at a percentage ratio of 75 : 25. The experience of the Mindanao Baptist Rural Life Centre in Bansalan Davao del Sur, shows that this technology can help reduce soil erosion by four times, increases corn yield by five times and income by six times. This information material will guide you on how to put up SALT-1.

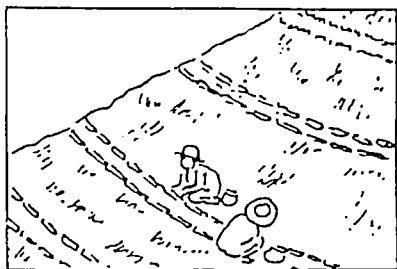
Salt is a **simple, applicable, low cost and timely** method of farming the uplands. This technology was developed for farmers with few tools, small capital and little learning in agriculture. A farmer can integrate his traditional farming practices in the SALT system.

If farmers leave the SALT farm like some tribal groups do, the nitrogen-fixing trees (NFTs) will continue to grow and overshadow the crop area. By the time the land is reverted to cultivation, the soil has already been enriched by the large amount of leaves from the NFTs and there is no erosion to contend with. In addition, the trees may be harvested for firewood or charcoal as additional source of income. Findings of MBRLC show that a hectare of SALT farm can provide an income of P1,300/ha/mo as against the P200/ha/mo in hillside farms of corn cultivated the traditional way.

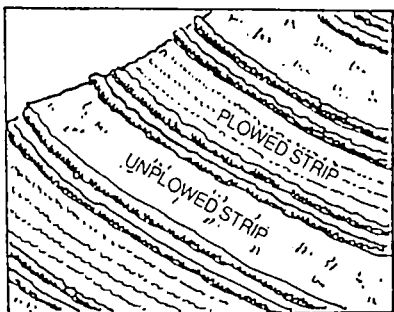


Here's how to put SALT-1 in your hillyland :

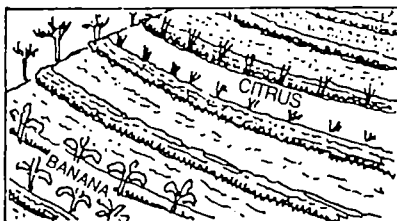
STEP 1 : LOCATE AND DEVELOP CONTOUR LINES. After you have found and marked the contour lines, plow and harrow them ready for planting. The width of each contour line to be prepared should be one meter.



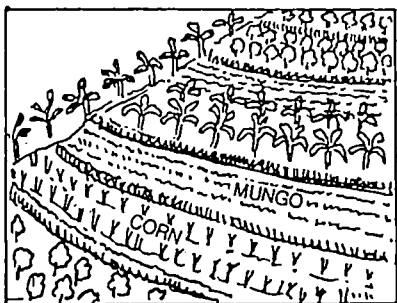
STEP 2 : PLANT CONTOUR LINES WITH LEGUMINOUS SHRUBS AND TREES. On each contour line, make two furrows one-half meter apart. Plant at least 2-3 seeds per hill at a distance of one-fourth inch between hills. Cover the seeds firmly with soil. Examples of NFTs are *Flamengia congesta*, *Gliricidia sepium* (madre de cacao or kakawate), *Leucaena diversifolia* (acid-tolerant ipil-ipil), and the *Desmodium (rensonii)*.



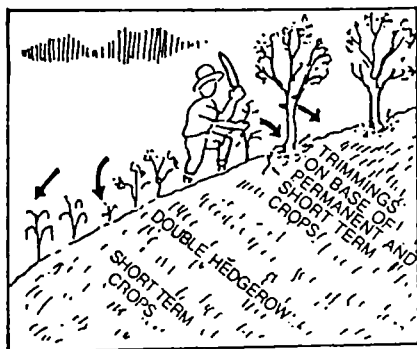
STEP 3 : CULTIVATE AND PLANT THE STRIPS ALTERNATELY. The space of land between the thick rows of NFTs where the crops are planted is called a strip. If you wish to prepare the soil for planting before the nitrogen-fixing trees are fully grown, do it alternately, on strips 2, 4, 6, 8 and so on. Alternate cultivation will prevent erosion because the unplowed strips will hold the soil in place.



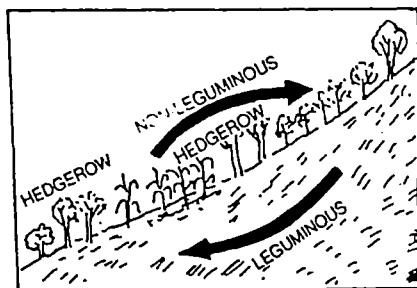
STEP 4 : PLANT LONG-TERM CROPS ON EVERY THIRD STRIP AND LAND BORDERS. Permanent crops may be planted at the same time the seeds of NFTs are sown. Only the spots for planting are cleared and dug; later, only ring weeding is employed until the NFTs are large enough to hold the soil so full cultivation can begin.



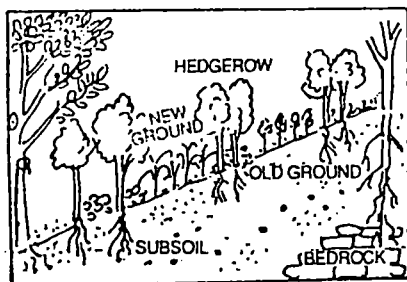
STEP 5 : PLANT SHORT-TERM CROPS ON EVERY FIRST AND SECOND STRIP. You can plant short and medium-term crops between strips of permanent crops as a source of food and regular income while waiting for the permanent crops to bear fruits. Suggested short- and medium-term crops are pineapple, ginger, gabi, castor, bean, camote, peanut, mung bean, melon, sorghum, corn, upland rice, etc. To avoid shading, short plants are planted away from the tall ones.



STEP 6 : TRIM THE CONTOUR HEDGEROWS REGULARLY. About once a month or when they begin to shade your crops, the continuously growing NFTs are cut down to 1 m. Cut leaves and twigs are always piled at the base of the crops. They serve as an excellent organic fertilizer. This way, only a minimal amount of commercial fertilizer (about 1/4 of the total fertilizer requirements) can be used if you so desire. Gradually decrease the use of commercial fertilizer if your crops already look healthy and productive.

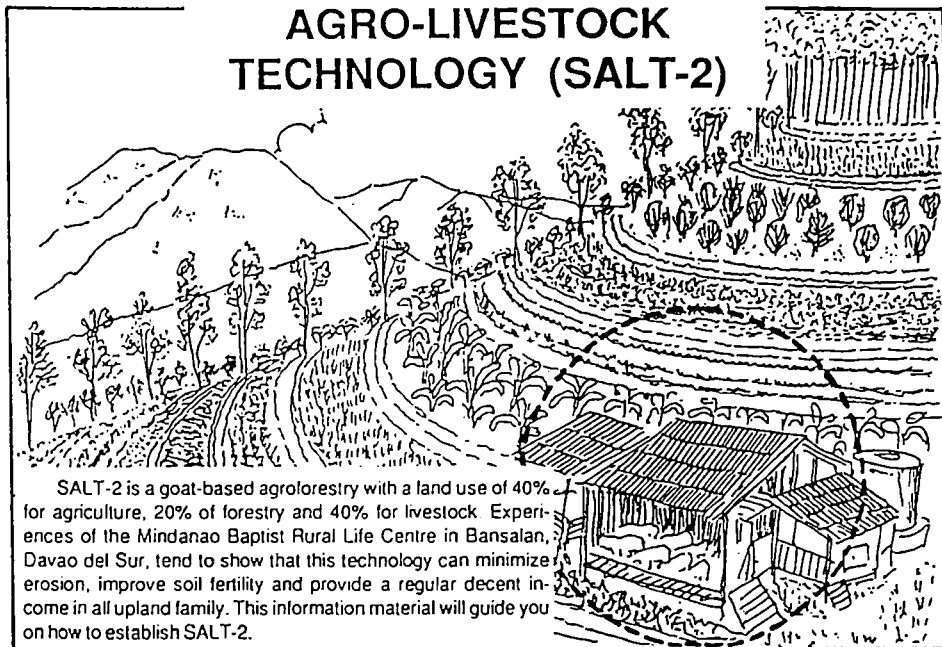


STEP 7 : ROTATE YOUR FOOD AND CASH CROPS. A good way of crop rotation is to plant grains (corn, upland rice, sorghum, etc.), tubers (camote, cassava, gabi, etc.) and other crops (pineapple, castor, bean, etc.) on strips where legumes (mung bean, bush sitao, peanut, etc.) were previously planted and vice versa. This practice will help maintain the fertility and good condition of your soil. Other management practices in crop growing like weeding and pest and insect control, should be done regularly.



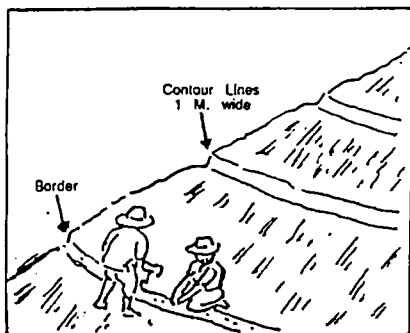
STEP 8 : MAINTAIN YOUR SALT-1 FARM. Apart from providing you with adequate food and sufficient income, an even more important benefit of using SALT is the control of soil erosion. This is done by the double thick rows of NFTs and the natural terraces being formed along the contour lines of the hill. As you go on farming the sloping land, keep gathering and piling up straw, stalks, twigs, branches, leaves, rocks and stones at the base of the rows of NFTs. By doing this regularly, you can build strong, permanent, naturally green and beautiful terraces which will reliably anchor your precious soil in its right place.

SIMPLE AGRO-LIVESTOCK TECHNOLOGY (SALT-2)



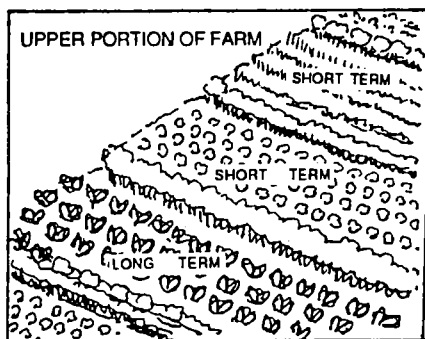
SALT-2 is a goat-based agroforestry with a land use of 40% for agriculture, 20% of forestry and 40% for livestock. Experiences of the Mindanao Baptist Rural Life Centre in Bansalan, Davao del Sur, tend to show that this technology can minimize erosion, improve soil fertility and provide a regular decent income in all upland family. This information material will guide you on how to establish SALT-2.

Among others, the uplander badly needs food, wood and animal products, like meat and milk. SALT-2 is an agro-silvi-pastoral scheme that attempts to meet these needs with focus on goat-raising. Although a goat is small, it can produce as much as two liters of milk everyday if it is purebred and its nutritional requirements are met. No wonder the goat is called "a poor man's cow". Here is how to put up SALT-2 in your small farm.

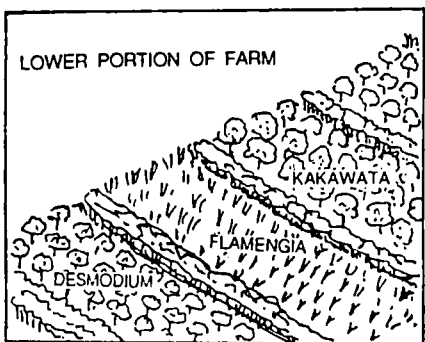


STEP 1 : LOCATE AND DEVELOP THE CONTOUR LINES

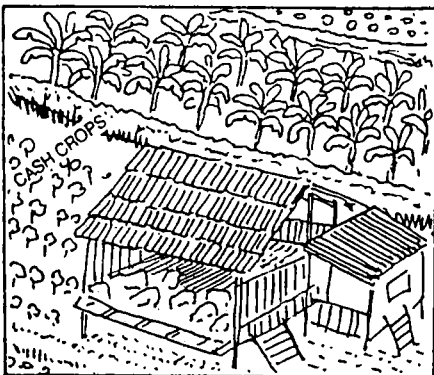
STEP 2 : ESTABLISH YOUR HEDGEROWS. Cultivate the contour lines thoroughly, forming raised beds, about 1 m wide. Make two furrows spaced 1/2 m apart on each contour line. Plant thickly your nitrogen-fixing multipurpose tree and shrub species (NF-MPTSS) on the furrows. Plant NF-MPTSS also on the uppermost part and along the borders of your land. Apart from conserving the soil, they will provide additional forage.



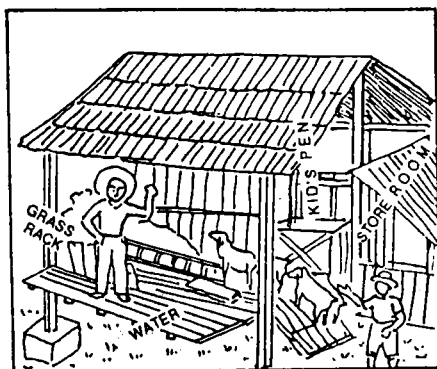
STEP 3 : PLANT FOOD AND CASH CROPS. Grow your food and cash crops on the upper half of the farm so that loosened soil due to cultivation is caught at the lower half by the forage crops. To avoid further disturbance of the soil, plant 3/4 of the agricultural area to long-term crops and the remaining 1/4 to short-term ones.



STEP 4 : DEVELOP YOUR FORAGE GARDEN. A project with 12 does and a buck needs a total land area of about 3/4 hectare. Half of the area is devoted to forage crops and this need to be established 6-8 months before bringing in the goats. Plant only palatable, proteinous, fast-coppicing and high-yielding forage crops. A suggested composition of forage crops is 50% *Desmodium rensonii*, 25% *Flamengia congesta*, 20% *Gliricidia sepium* and 5% napier and other grasses. Establish them at the beginning of the rainy season in rows of 1/2 m at 1/2 ft distance between hills with 1-2 plants/hill.



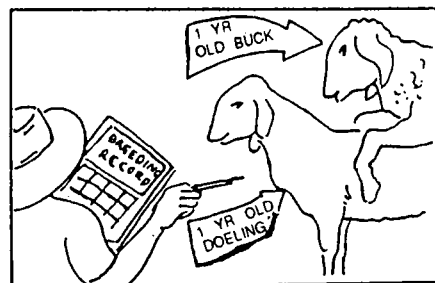
STEP 5 : LOCATE THE GOAT BARN. Build the barn at the middle of the farm between the boundary of the forage and foodcrops. This will save time and labour in hauling manure out to the farm and in carrying forage to your goats. Provide floor space of 20-25 sq. ft./goat using local materials. For convenient manure removal, the floor is raised about 4 ft above the ground with floor slots nailed, 1/2 inch apart. Essential divisions and fixtures in your goat house are kids' separation pen, milking stanchion, milkroom, storeroom, feed trough, grass rack, waterer and salt trough.



STEP 6 : BRING IN THE STOCK AT THE RIGHT TIME. Do this only when your forage garden has been fully established and you are certain it is already capable of supplying sufficient feeds. This should be about 6-8 months after planting your forage crops. The recommended breeds are either the purebreds, crossbreds or upgrades of Nubian, Alpine and La Mancha. Without these breeds, start with the biggest and healthiest goat you can buy. A good stocking rate is 1 buck : 12 does per 1/2-3/4 hectare of a well-developed agroforest farm.

STEP 7 : FEED THE GOATS SUFFICIENTLY.

Your goats essentially need concentrates (high-energy feeds) and forage (high-fibre feeds) daily. A milking doe weighing about 50 kg and giving 1 liter of milk a day needs 1 kg of concentrate and 5 kg of forage per day. Give the feeds in the morning and in the afternoon. A good concentrate consists of 18% first class rice bran, 23% corn grain or rice middlings, 21% copra meal, 36% ipil-ipil leaf meal, 1% salt, and 1% limestone. A good forage is a mixture of 50% D. rensonii, 25% Flamengia, 20% Gliricidia, and 5% napier and other grasses. Provide your goats with salt and plenty of fresh water daily.



STEP 8 : BREED THE GOATS. Earlier breeding will stunt the animal. A doe should not be bred until she weighs 45-50 kg or is about 10-12 months of age. It is best to breed the doe in the second day of the heat period because conception is usually more successful at this time. If it does not become pregnant after being bred over three heat periods, cull it or place it under close observation if it is a valuable breeding animal.



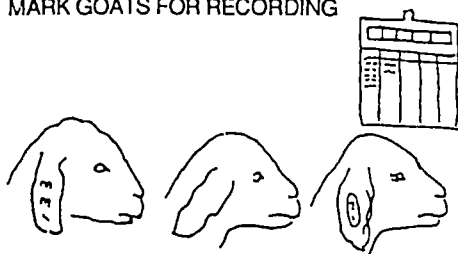
STEP 9 : MARKET YOUR PRODUCTS WISELY.

Do not delay marketing your agriculture, forestry and livestock products. Milk your goats daily, pasteurize the milk and dispose it immediately. Goats are to be marketed at the age of 10-12 months or when weighing from 35-55 kg.



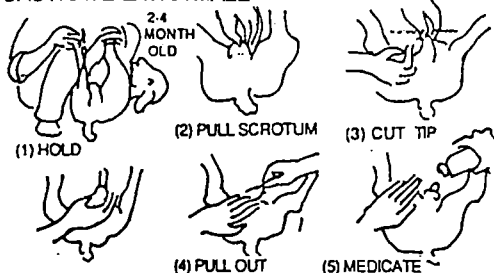
STEP 10 : MAINTAIN THE FARM REGULARLY.
Cut your hedgerows 1/2-1 m from the ground when they begin to shade the field crops. Replant missing hills of the hedgerows, weed and clean the crops and spray with chemicals only if necessary. Deworming of goats, hoof trimming, disbudding, castration and spreading manure to the farm for fertilizer are some of the necessary routine practices to be done in the SALT-2 farm.

MARK GOATS FOR RECORDING

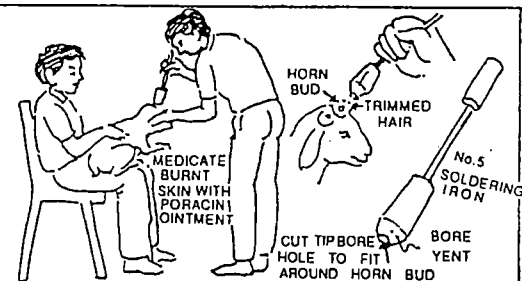
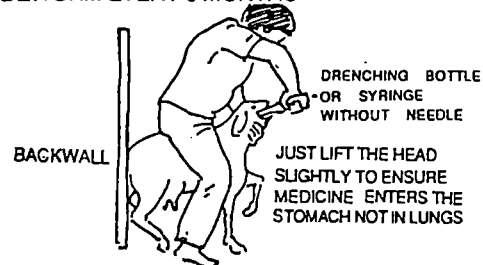


TATTOOING OR EAR NOTCHING OR EAR TAGGING

CASTRATE EXTRA MALE

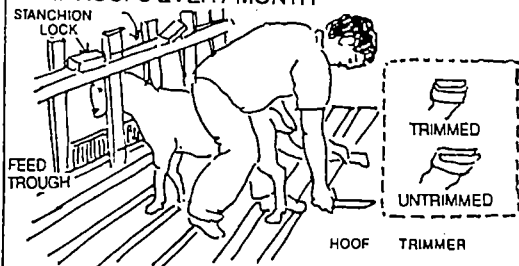


DEWORM EVERY 3 MONTHS

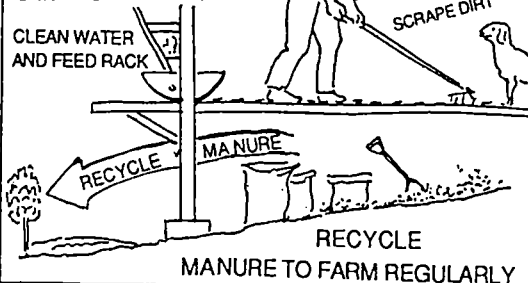


DISBUD ALL HORNED KIDS

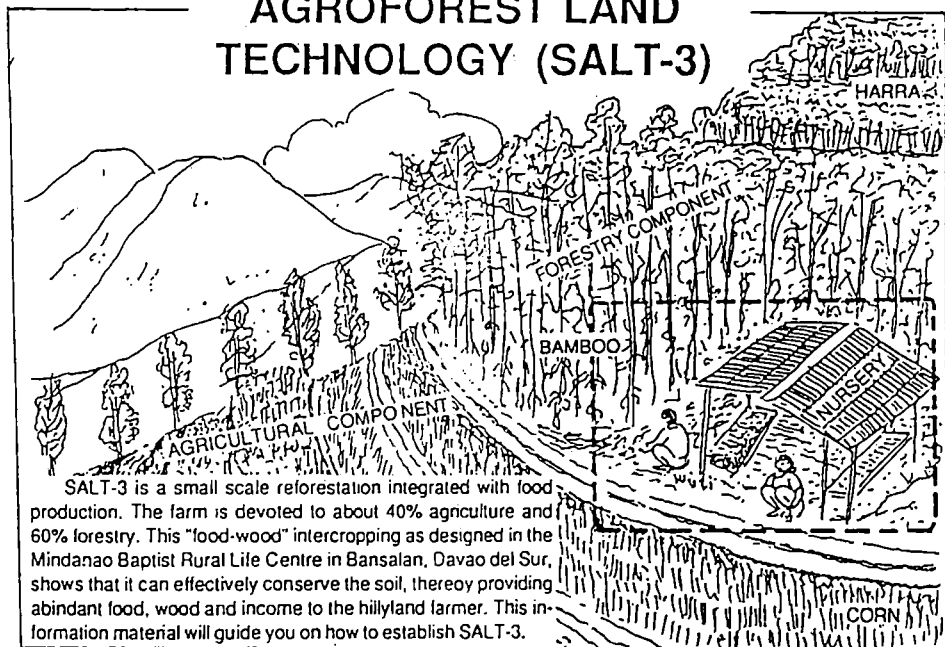
TRIM HOOFS EVERY MONTH



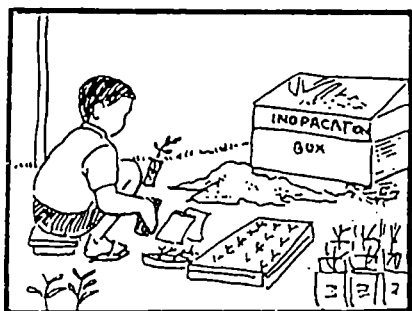
CLEAN BARN DAILY



SUSTAINABLE AGROFOREST LAND TECHNOLOGY (SALT-3)



Deforestation, soil erosion and inappropriate farming technologies are the three major causes of low farm productivity, thus the manifold poverty in the uplands. Agroforestry is fast becoming one of the sustainable alternatives to sufficient food production and income generation for the uplands. SALT-3 is a variant of agroforestry and here is how to put it up in your hillyland.



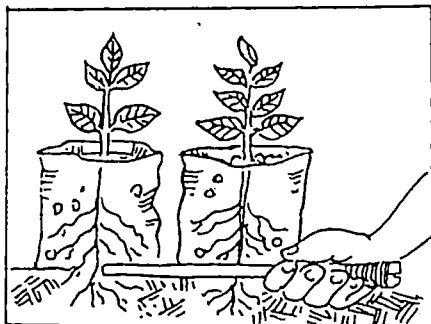
STEP 1 : SET UP THE AGROFORESTRY NURSERY. Ensure sufficient supply of planting materials for your agroforest farm by setting up your own nursery. A nursery of about 10' x 25' can sufficiently meet the needs of a 2-hectare agroforest farm.

Establish your nursery where it is accessible, with the following fixtures : potting shed, transplant shed, seedbeds, etc. Basic equipments like sprinklers, shovel, spade should also be available.



STEP 2 : CARE AND MANAGE YOUR SEED-LINGS. For better growth and field survival, the production of healthy and vigorous planting stock is necessary.

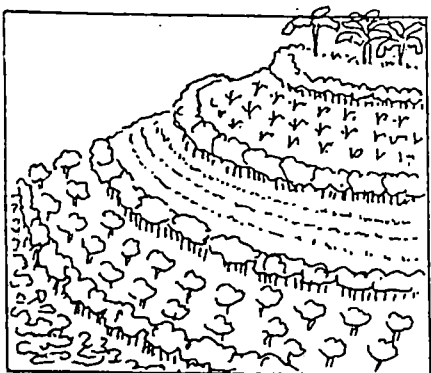
- Sow the seeds. Most forest tree seeds are hard to germinate so they need scarification either by mechanical or hot water treatment. The most common problem encountered in seed germination is damping off and insect defoliators. Sterilize the soil before sowing the seeds to avoid damping off. Use chemicals when necessary.



The seedbeds or transplant beds must be kept moist at all times. Mulch and shade the plants.

- Transplant. Prune the roots of species that can be outplanted bare root (mahogany, teak, etc.). Do not allow weeds to compete with your transplant. Fertilizer may be applied in conjunction with watering long before transplanting. Dissolve complete fertilizer (14-14-14 or 15-15-15) at the rate of 10 g/li water.

Harden off seedlings by gradually exposing them to more adverse conditions obtaining in the field. Do this 3-6 months before transplanting. Seedlings ready to be planted should have sturdy, well-developed crowns and many fine, fibrous lateral roots.



STEP 3 : ESTABLISH YOUR FOOD CROPS ON THE LOWER HALF OF THE FARM. Plant your preferred short-term crops, on every first and second strips. A strip is a 4-5 m alley created between contour hedgerows. Depending on their suitability to your farm, plant long-term crops like citrus, coffee, cacao, banana, black pepper, etc. on every third strip. Then intercrop them with fruit trees, like rambutan, durian, lanzones, guava, siniguelas, duhat, etc. following appropriate planting distances.

The earlier you establish your food and cash crops, the better off you will be in meeting your immediate needs.

Follow SALT-1 steps in establishing your food crops.

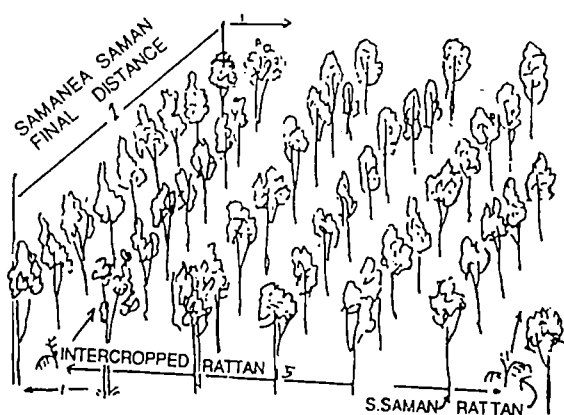


STEP 4 : PREPARE THE SLOPE FOR YOUR WOOD CROPS. Locate the woodlot at the upper half of the project so that the agricultural component on the lower portion will benefit from the conserved moisture and nutrients from the wood crops.

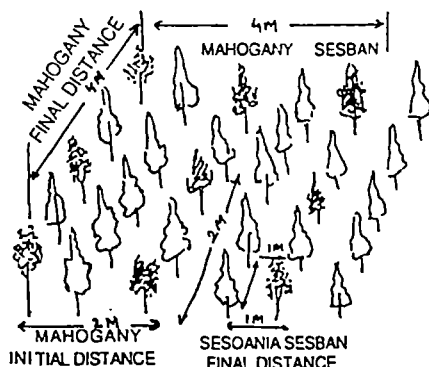
On areas with steep slope and with erodible soil, extra care must be exercised so as not to induce soil erosion when clearing the area. You can use either partial or complete removal of vegetation whichever is more favorable to you. Avoid burning.

STEP 5 : COMPARTMENTALIZE AND SPACE YOUR WOOD CROPS. For a 3-fold objective of soil rehabilitation, firewood production and timber growing, you can maximize the use of land space by following the high density strategy of establishing small-scale woodlots.

As jointly designed by representative foresters, agriculturists, farmers and countryside developers consulted by MBRLC in developing SALT-3 (2-hectares), the following were recommended :



AN INTERCROPPING LAY OUT OF SAMANEA SAMAN AND RATTAN



AN INTERCROPPING LAY OUT OF MAHOGANY OR NARRA AND S.SESBAN

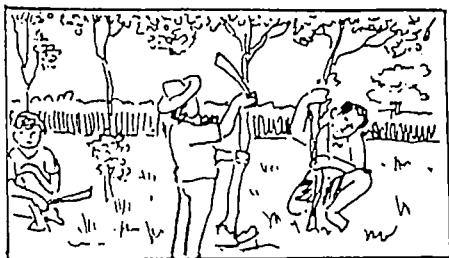
COMPONENT ON TOP-DOWN SEQUENCE	HECTARE	SPACING		DURATION
		INITIAL	FINAL	
1. Rain tree (<i>S. saman</i>)	1/4	1 x 1 m	8 x 8 m	Long term (15-25 years)
2. Rattan (<i>C. merillii</i>) as in intercrop with rain tree	1/4	8 x 8 m	8 x 8 m	Long term
3. Narra (<i>P. indicus</i>)	1/8	2 x 2 m	4 x 4 m	Long term
4. Katuray (<i>S. sesban</i>) as intercrop with narra and mahogany	1/4	1 x 1 m	1 x 1 m	Short term (1-5 years)
5. Mahogany (<i>S. macrophylla</i>)	1/8	2 x 2 m	4 x 4 m	Long term
6. <i>A. auriculiforais</i>	1/16	2 x 2 m	2 x 2 m	Medium term (6-14 years)
7. <i>A. mangium</i>	1/16	2 x 2 m	4 x 4 m	Medium term
8. <i>P. dulce</i> & formosa mixed	1/8	1 x 1 m	1 x 1 m	Short term
9. Acid ipil-ipil (<i>L. diversifolia</i>)	1/4	1 x 1 m	1 x 1 m	Short term
10. Bamboo (botany variety)	on border	8m between hills	8m between hills	Long term
11. Hedgerows or agriculture component	1/4	4-6m apart	4-6m apart	Long term



STEP 6: OUTPLANT THE TREES. This can be started as early as the beginning or up to the middle of the rainy season so that seedlings can get established prior to the dry season.

You can also follow the contour when out-planting although it is not so imperative. Take care not to break the earth-ball when setting the seedling into the planting hole. The upper part of the earth-ball should be level or slightly deeper than the edge of the hole. Soil is filled into the spaces and tamped firmly all around.

For fast recovery of the seedlings in degraded sites apply basal application of 50-100 g of complete fertilizer (14-14-14) mixed with urea (46-0-0) at 50 : 50 ratio. Mulch your seedlings to insure higher linability.



STEP 7 : INTERCROP YOUR TREE CROPS. Short- and medium-term food and cash crops can be interplanted in your forestry component during the first 2 years. Long-term ones like black pepper and rattan can be incorporated at the beginning of the second year. You can even raise poultry (goose, turkey, muscovy) and small livestock (preferably sheep) underneath the tree crops during the following years.

For effective soil management, see to it that non-legume short-term crops are replaced by leguminous ones and vice versa in every cropping.



STEP 8 : DO TREE STAND IMPROVEMENT. Apart from regular ring-weeding and liberation cutting, improve the stand of your trees. Remove the malformed trees. Replant the missing hills if you feel the replanted trees can still catch up.

However, replanting is laborious and expensive and should be done only to maintain required spacing or density. This is also performed when mortality is more than 30%.



STEP 9 : HARVEST YOUR AGROFOREST PRODUCTS REGULARLY. Timely harvesting of crops saves waste. All households and useful products must be gathered, processed and marketed. In the forestry components -- forage from tree prunings, fuelwood and roundwood from thinnings commence during the second year. Thin out regularly your forestry area until the timber crop spacing requirement is complied with.

Here is a suggested schedule of harvesting your forest trees, patterned after the MBLRC plan.

YEAR	SPECIES	HARVESTING METHOD	USE
1	None	Selective	Fuelwood/charcoal leaves for feeds, etc.
2	Seshania sesban	All-out	
3-5	S. sesban Leucaena diversifolia Samanea saman Pithecelobium dulce Mahogany	All-out All-out Selective Selective Selective	" Fuelwood and light construction, etc.
	Narra Acacia mangium A. auriculiformis	Selective Selective Selective	
6-14	Bamboo	Selective	Light construction furniture, etc.
	Rattan A. auriculiformis	Selective All-out	" Fuelwood and light construction, etc.
	A. mangium Narra, mahogany	All-out Selective	" Timber and furniture
15-25	Rattan Narra, mahogany S. saman	Selective All-out All-out	

APPENDIX 7

VANSDA—A UNIQUE MODEL OF TRIBAL REHABILITATION

The Vansda Model of Tribal Rehabilitation has not only given a new direction for thought and action, but has also held out the promise of its possible replication in other parts of the country. Experience gained at Vansda has clearly shown that the deprived, the dispossessed, the landless and the jobless, whose number is legion, want to be and need to be rehabilitated in their own natural environment and are anxious to be able to make a decent living on the strength of natural resources within their vicinity and within their reach.

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“Adivasis” (the tribals) are the earliest inhabitants of the land. However, in most places, the march of progress has left them far behind. Tribals in India have long been victims of exploitation, poverty, disease and ignorance.

The Setting

Vansda Block in Valsad District of Gujarat is a predominantly tribal area characterized by an undulating hilly terrain and heavy seasonal rainfall. The tribal families have either small holdings of land or are landless. They mostly cultivate one rainfed crop, and after harvest there are no opportunities for gainful activity. Survival has become a hand-to-mouth struggle, a clash between ecology and existence. Large number of adivasi families have to migrate seasonally after every monsoon to nearby towns in search of work. It is a vicious cycle. Faced with a meaningless life, the tribals take to drink not for pleasure, but to forget. It is against this setting, that in 1982, BAIF initiated a programme for tribal rehabilitation.

Programme Approach

BAIF believes in working for the development of the rural poor through establishing a meaningful and rewarding relationship between the five basic resources—Land, Water, Vegetation, Livestock, and MAN. BAIF is committed to use *Science and Technology* to help improve livelihood and the socioeconomic status of the rural poor. Fully aware that if the tribal families continued to consume liquor, these very aims and objectives would be defeated, BAIF made it very clear that giving up drink and working hard are the two pre-requisites for joining the programme.

Salient Features of BAIF's Approach

- Operating with the family as a unit.
- Establishing a strong rapport with the participating families.
- Developing confidence in the tribals about their own capabilities and skills.
- Providing strong techno-managerial inputs.
- Strong bias on activities for the welfare of women and children.

The Start

The beginning was slow and hesitant. Only 42 families joined the programme initially. The others waited and watched. When they saw that the participating families were not only developing their own assets in the form of fruit and forestry plantations, but also received wage support, so that they had no more need to migrate, the initial hesitation and scepticism thawed. The number of participating families crossed 5000 in about five years.

Programme Components

Set upon the task of converting wastelands into orchards, each family works on one acre of land. For those, who are landless, the Government has allotted one acre of wasteland on usufruct basis. The wastelands are surveyed and a land treatment plan is prepared.

On each plot of land, the tribal family works throughout the year to take up measures such as land shaping, contour marking, bunding, terracing, livehedge fencing, digging plots, plantation of trees, aftercare and so on. Fruit trees like mangoes, guava, papaya are planted in each WADI (*orchard*). Subabul, Eucalyptus, Casuarina and Bamboo are also planted to provide fuel, fodder and timber. Vegetables are cultivated as intercrops. Each tribal family is now developing a wadi full of fruits and forest trees and intercrops. The entire wasteland is being transformed into a productive orchard.

‘A’ Frame

The A frame is a simple device made of three bamboo poles shaped like an “A” and is used to mark contours on the hill slopes with remarkable speed and ease. Tribal youth are trained in assembling and using the A frame. These ‘barefoot technicians’ then move from plot to plot marking contours. It is an instance of introducing appropriate technology and teaching the unlettered tribals to use it effectively.

Water is the lifeline of such a programme. Acute scarcity of water during summer led to a novel system to harvest runoff water after monsoon. The streams (*nallahs*) are plugged by temporary check bunds erected by using old gunny bags filled with sand or silt. This low cost technique is labour intensive, speedy and simple. Thus, water pondages are created all along the nallahs, providing life saving water for critical irrigation.

Land surveys were followed by design and installation of decentralised small scale lift irrigation schemes in large numbers. A pumpset was installed at every check bund, and pipelines were laid. The water flowing in the nallahs was thus carried to each plot being developed by the tribals. Simultaneously, a scheme for providing drinking water through borewells was initiated in each village.

Wavli

‘Wavli’ is a typical tribal custom under which the income earned by the women is retained by them and men have no claim to it. BAIF identified *wavli* as the most potent intervention to involve women and ensure them

a steady income. The task of raising nurseries was therefore entrusted to women. They were helped in procuring polythene bags and seeds and trained in all aspects of nursery raising. This programme not only provides thousands of seedlings for future plantations, but also income for the women. Cultivation of vegetables has also become an important *Wavli* activity. Alongwith additional income from vegetable sale, it helps in an improved diet. A significant feature of the programme is extensive use of handpumps and borewells for raising nurseries and vegetables.

Mango Grafting

The backbone of the programme is horticulture. Plantation of graft varieties of mangoes had to face the bottlenecks of unavailability of large number of grafted saplings, high price, costly transportation etc. A group of tribal youth was trained in the technique of stone grafting and softwood grafting. Each group of 20 tribal families selects one young boy who is trained in this technique. This has slashed the costs of mango grafts to just ten percent of the market price.

Health Programme

The health programme at Vandsa was launched with the objective of providing primary health care servicen, especially to children and mothers. Various programme components include vaccination of children, growth monitoring, antenatal care, provision of good quality drinking water, health education, etc.

Community health workers have been trained in delivery of primary health care. They are responsible for recording health information and disease incidence in their own villages. They are supported by a mobile health team consisting of a doctor and paramedical staff. Training of village midwives and village women is an important part of the programme.

Ayojan Samiti

An "*Ayojan Samiti*"-the *planning committee*-has been formed of one man and one woman representative for every 20 families. The members of the Ayojan Samiti meet every month to plan and monitor the programme

at each stage. This helps the tribals to take initiative and solve problems at the local level.

The Impact

Vansda is blooming. The wadis are full of lush green trees and vegetables. There is prosperity and happiness.

The tribal poor have shown that given an opportunity to improve their living condition and economic status, they can work hard and stay clear of self-destroying addictions. Vansda was once a wasteland. The programme was aimed at two goals : of providing year round gainful self-employment and putting a stop to migration. Forest trees, fruit trees and food crops make a three tier cropping system, the result of which has been bountiful. The main objective was not merely to provide sustainable livelihood, but to ensure an improved quality of life blended with a sound value system.

The tribal communities have evolved a way of life, which on one hand is woven around forest ecology and forest resources and on the other, ensures that forests are protected against deprecation by man and nature. The local tribal communities thus have a symbiotic relationship with forests. A wise use of this life style through such a rehabilitation programme will help achieve total development through simultaneous development of forests and wastelands.

Today, Vansda has become the symbol of a new awakening. The success of this unique and bold experiment has thrown up interesting possibilities of extension of this programme to other parts of the country. Vansda symbolises BAIF's unique model of tribal rehabilitation.

APPENDIX 8

PEOPLE AT THE CENTRE OF THE STAGE PANCHASHILA OF PEOPLE'S DEVELOPMENT

1. People at the Centre of the Stage :

If there is anything we can learn from earlier efforts to find alternatives to shifting cultivation, it is that nobody else, however qualified and powerful, can make decisions 'for' the people and expect the latter to to implement them. The shifting cultivators themselves must be the centre stage actors in the changes that are being visualised.

(a) In their case, one deals with decisions where the acceptability of the decision is far more important than the technical quality, though the latter must, of course, be given attention also.

All other agencies, that have a role to play in the development of the alternatives, including the administration, the Forest Department, the NGOs are only enablers. These agencies can create at macro and micro level, the structures and climate, legal, administrative, financial, technical and human which facilitate appropriate decision making by the shifting cultivators, or at least avoid creating obstructions to the process.

(b) What is by all means to be avoided, is to make people feel bad or guilty about shifting cultivation, because this only arouses their defences, and condemns the programme to certain failure. It will also create a wrong 'social contract or understanding' between the shifting cultivators and the enabling agencies. Besides, it would be unfair and unjust towards them.

For centuries, shifting cultivation has proved to be a sustainable and viable manner of combining agriculture and forestry, ecological balance was maintained. It was only when larger forces, especially increase in population, beyond the comprehension of tribal people began to impinge on the forests, that the system lost its balance. The problem was not of their making.

Shifting cultivation forms the core of the culture of many tribes, including their religious beliefs. To attack the practice directly would create

serious problems in the tribal psyche. Words like anti-podu and others which carry negative connotations, must be avoided.

The remark of Verrier Elwin in a Philosophy for NEFA, still carries relevance :

“The correct approach to the problem of shifting cultivation lies in accepting it not as a necessary evil, but recognising it as a way of life; not condemning it as an evil practice, but regarding it as a cultural practice evolved as it reflects the physiological character of the land. For too long shifting cultivation has been condemned out of hand as a curse to be ashamed of.... This attitude endangers an inferiority complex and an unhealthy atmosphere for launching of any development scheme to improve the present practices”.

(c) This involves that one should not aim for a total replacement of shifting cultivation, but permit its practise on a restricted area of village territory, so as to meet the symbolical, cultural, religious and culinary needs of a people's ethnic identity.

2. The Panchashila of People's Empowerment & Action :

If one takes seriously what has just been affirmed, i. e. that the shifting cultivators themselves have to be the centre stage actors in the process of change, and make decisions, because it will be their risk, their rewards, their pride, one cannot immediately introduce alternatives to shifting cultivation, however appropriate these may be in the eyes of the agencies, including the catalytic agent, in this case the NGO. The shifting cultivators have to go through a process of preparation, faster or slower, according to the circumstances.

This is called the panchashila of people's development and consists of five steps interconnected, though the sequence in which they take place, can be altered. The five steps are :

- * People's Awakening
- * Education
- * Organisation

- Empowerement
- Action

People's action comes logically only as the fifth step. One might feel impatient at this, and adopt a crash programme approach. Experience in tribal areas, however, demonstrates that where one allows enough time for the panchashila to work as a leaven, there subsequent adoption to change is easier, and free from difficulties that crash programmes usually bring along. A word on each of the five steps :

(a) **PEOPLE'S AWAKENING** : The shifting cultivators are already aware that theirs is a losing battle if they persist in shifting cultivation only. What needs to be done is to awaken them to the alternatives that are viable, and to the possibility of containing podu to a great extent. The most important factor, perhaps, is that they have hope in the future and self-confidence that they can reach somewhere.

Since most groups have already taken to alternatives, there is a possibility for promoting horizontal learning. In this approach, people are not told something from above, but acquire new knowledge and awareness by visiting neighbouring groups, who have already gone ahead in the transition. Representatives of groups can be taken to neighbouring districts within that state, in order to talk with shifting cultivators, who had adopted horticulture, terrace cultivation, other innovations and see for themselves.

Participatory appraisal for rural development, a new method to enable villagers to share their own knowledge, seems also to offer considerable possibilities for awakening, education and planning, in fact in the whole panchashila which is discussed here. It is being promoted by MYRADA, Bangalore, and Robert Chambers, at present at ASCI, Hyderabad.

Melas and yatras where large numbers of people hear messages of alternatives to shifting cultivation, street plays, are good also. If an opportunity is given for representatives of groups to speak in public in their own tribal/regional language, eg. Kui in Phulbani district, the message of containing podu and restoring forests to health will get across more easily. There are hills in Orissa where years ago, one village has stopped podu and

has protected the regenerating forest, while the neighbouring village has carried on and has only barren land to show. The difference is there to see. However, it is only when within a larger context one village talks to another, that positive results and breakthroughs can be expected.

Awakening is a first step, and has in most cases already started. It should not make people feel guilty, but confident that if they do something together, they can achieve their goal. Let the unit be the same watershed, or a hill slope, because groups depend very much on what others are doing. The basic unit of the awakening process is the settlement of households living in close proximity with one another.

Awakening is then an unfreezing process, of deeply encrusted views and convictions. It can never be stopped, but must go on indefinitely.

(b) PEOPLE'S EDUCATION : In this step groups who have grown in consciousness are provided with information on what alternatives are available and could be tried out. This 'education' is closely related with awakening, of course. The spoken word, especially when uttered in a panchayat, by individuals whom people trust, has more effect than any audio-visual means. The spoken word can easily be supplemented with audio-visuals, but the latter may easily distract tribal groups as entertainment, rather than education.

The education we speak of here is, of course, non-formal. What people learn from each other. Very essential is the wavelength on which the animator or speaker is with the particular group, whether he or she adopts a negative looking-down-upon attitude, or radiates good will, belief in people and commitment, to what he or she says. Participatory appraisal for Rural Development (PAR) has an important role to play in Education.

Education will have to be carried on beyond these initial steps, podu chasa groups have to continue to be supplied with information on alternatives, but also about health, nutrition, market prices, use of compost, fruits that can be grown, irrigation, rearing of animals.

In order to raise the productivity of land being used by ex-shifting cultivators, in such a manner that the land yields enough for a sustainable

rural economy, technical education will have to be provided. This could be done in the form of extension programme by young men and women trained in village forest training centres (VFTC) run by NGOs in Orissa. Ordinary villagers, men and women, also could be deputed for one week exposure courses in such centres, eg. for inputs on bee keeping, poultry, leaf plate making, mushroom cultivation, etc.

To do justice to its educational task, the sponsoring agency will need some field workers who have acquired sound basic knowledge on the alternatives that are technically possible, and on innovations that are taking place in the field of agriculture.

(c) **PEOPLE'S ORGANISATION** : This would refer to the Village Forest Protection Committees of which already hundreds exist in Orissa, whether formally recognised or not. Such organisations are close to the traditional way in which tribal society has organised itself to cope with problems. Such committees should operate first of all at primary settlement level, i.e. the people who have practised podu in a specific area of forest. Such committees can be federated into a local federation covering a watershed, or hillslope, so that differences can be amicably settled, or contractors and persons from outside who come and disturb the existing arrangements, can be dealt with.

How these committees are constituted should be left to the people, rather than prescribed from above. The village forest committee appointed by the Government under the Social Forestry Programme in Orissa have not been a success because they were constituted from above. In such a case there is a danger that members of the local elite, who are more vocal, educated and cleverer than the common folk, soon appropriate the benefits of organisation themselves.

A problem needing attention is how to organise women. They play a vital role in the protection and regeneration of forests, more than men. Yet in traditional social structures, they are by custom, expected to keep quiet. What women can do, once their creative power is released, has been demonstrated by the case of Bankura and other districts in West Bengal.

(d) **PEOPLE'S EMPOWERMENT** : A group cannot undertake action with regard to its own members, disciplining for instance erring persons, or vis-a-vis the outside world, unless it has power, the ability to influence the behaviour of others towards a desirable end.

As has been proved from the case of the Village Forest Protection Committee in West Bengal, groups must not only have informal power, but power recognised by the State, if they are to be in a position to protect their assets against intruders, contractors, erring lower functionaries.

Psychologically also, the feeling that one has power, is a deep motivating drive, and lends dignity to the individual and his colleagues.

Empowerment naturally arises out of organisation, and also out of recognition of such power, by authorities and other groups. It is then called bargaining power.

(e) **PEOPLE'S ACTION** : When people have proceeded that far in the panchashila, they are ready to take decisions and to implement actions which will restore their environment to sustainability.

If enabling agencies have had patience till that moment, and concrete interventions, at least major ones, are undertaken only at that moment, such interventions will be appropriated and interiorised by the people as their own, and executed because these are their own decisions, not those of somebody else.

The panchashila should really never be stopped. Increasingly complex challenges of management of resources, the generation of savings and credit, other challenges demand people's attention. Matters cannot be entrusted to office bearers exclusively, lest the latter become negligent or embezzle the money or cheat members in other ways. Constant watchfulness is a necessity.

3. NGOs as Catalytic Agents

What assurance is there that NGOs in Orissa will be more effective than other agencies, which have tried their hand earlier, and have met only

with partial success ? This is one point to be pondered by any NGO which volunteers to take up the challenge.

What role do the NGOs have to play ? This is the second point.

Lastly, what conditions have to be fulfilled if an NGO is to succeed in this task, and achieve a breakthrough towards a popular movement ?

(a) CAN NGOs DELIVER THE GOODS : Points in favour of NGOs are : That in podu chasa the human aspect is the most vital one, and only when the people make their own decisions, one can expect lasting results. Many of the shifting cultivators, however, are at a still relatively primitive level of culture, their experience in interacting with the outside world has not been encouraging, and by nature they shy away from contact. In short a highly vulnerable population. Whenever success was attained with them, it was because of the commitment and sincerity of the anthropologists or officers, who identified closely with them. The NGOs are better suited than official agencies to create this type of encouraging climate with the shifting cultivators.

In the solution suggested here, the process of development is put upside down : people as central decision makers, all other agencies functioning as enablers. This role is one with which most official agencies are likely to have difficulties, as it goes against their bureaucratic nature. For NGOs, however, this is really nothing new. NGOs have the liberty of movement, to adjust themselves to the needs of the people, and have greater manoeuvrability than official agencies.

Finally, those NGOs in Orissa, which have already worked in the area of alternatives to shifting cultivation, have won the confidence of the people, and achieved relative success.

There are also doubts : While NGOs are usually at home in promoting the panchashila of development, will they deliver the goods when it comes to the implementation of people's action ? Only NGOs with a certain organisational strength, adequate staff including professionals working at field level, a good accounting system, credibility in the eyes of the

administration, can attempt the task. Not just any NGO should rush into this field, where angels fear to tread !

While there may be nothing wrong with the NGO itself, what assurance is there that officials of the Government agencies whose help will have to be enlisted, revenue, irrigation, soil conservation, forest, education, will be more obliging than they have been towards ITDA ? Jealousy is a factor that can boycott genuine efforts. The denial of opportunities to extract bribes, that existed earlier may make lower functionaries non-cooperative. The danger of obstructions by functionaries must be kept in mind.

Through a hot line approach with the highest administration in the State, this problem can be solved at policy level. If, however, the staff of departments operating at block level are not cooperative with the NGOs, no power from higher up can do much about this. Only people's power could, but by nature, shifting cultivators are not inclined, nor do they have the time to demonstrate in front of the office of the BDO, or the Collector.

(b) WHAT ROLE DO THE NGOs HAVE TO PLAY AS CATALYSTS & ENABLERS

This role can be cut down into several tasks :

- * First, there is the promotion of the panchashila which has already been explained, and which is relatively easy for NGOs.

- * Secondly, the NGO has to sit down with the shifting cultivators and plan in detail, what can be done. Decision making has to be left to them and can be promoted through the PARD method. In this process, the NGOs must see to it that enough alternatives are aired, so that shifting cultivators can make a well reasoned choice.

- * The third task is interaction with Government and infrastructural agencies. Initially, the people hesitate very much and need a lot of encouragement and support 'from the back'. The best policy is to depend on the Government and its agencies as little as possible; The latter can give advice and must see that its functionaries do not obstruct the work carried out by the NGOs.

- A fourth task is to see that the bolts and nuts of implementation are properly fixed, well oiled, and to remove irritants that are bound to arise. Constant watchfulness is needed.

- A fifth is to see that the other basic services are in place, and function, such as drinking water, education, health, income generation, training schemes, child welfare, women development. Also the starting of a saving-cum-credit scheme.

- A sixth task, which follows logically is to see that a proper monitoring system, participatory in nature, of course, is put in place and begins to function as a matter of routine. An immense effort against rural immobility is required.

- The seventh task is to plan for withdrawal of the NGO, and promote self-reliance of the group, within a period of, say, five years.

- A series of other tasks, looking towards the wider world, are to be executed; such as : public relations with other agencies of the delivery system, receiving visitors, documentation of what is happening and sharing it with others, networking with other groups.

(c) **CONDITIONS FOR NGOS TO SUCCEED IN THIS TASK :** The role of escorting shifting cultivators in finding alternatives involves a major corporate commitment and should not be taken up lightly by an NGO. The organisation will have to do the following :

- Sit down and list its organisational strengths and weaknesses and see whether it can take up the task and do justice to it.

- Make a corporate commitment, knowing fully well that it may involve a time period of five years or more.

- As a follow-up to the analysis of organisational strengths and weaknesses, remove weaknesses, such as absence of qualified staff, improving the financial and accounting system of the organisation, bring about a greater sharing of ideas in case there are fissiparous tendencies, setting up a proper monitoring system, if this has not been done earlier,

providing training to personnel in new methods such as PARD, and in technical aspects of agro-forestry, etc.

- * Discuss the proposed programme with a group of shifting cultivators, and come to an understanding, expressed possibly in a memorandum of understanding, spelling out mutual responsibilities and expectations.

In order to assure intensive interaction during the initial period, the group of shifting cultivators may be rather small, inhabiting one area, so that personal contact is possible. A group of 150 to 200 families, perhaps. Later on, if the initial experiment proves successful, the message will begin to spread by itself, and to snowball. The initial thrust should not be blunt because it is too ambitious.

- * Come to an understanding with SIDA, or other agency and enter into a contract, covering financial matters and a system of monitoring and reporting progress. The funds are released as fees, and not as a grant, falling under the FCRA rules. SIDA, however, plans to conduct a few pilot projects with selected NGOs only. If the project proves viable and more NGOs come forward, alternative arrangements will be needed.

- * Appoint a project officer, an experienced young professional to work on a full time basis in the venture, and provide him with the means to do justice to the task, such as transport and supporting staff. To take care of the interests of women, a lady project officer may be needed quite early in the project also.

Work out a cost estimate of how much it will cost to rehabilitate one family of shifting cultivators. This is needed to later on measure the effectiveness of the programme. Under the ITDA, Rs. 30,000/- is provided per family.

- * Enter into relationship with NGOs in Orissa, engaged in the same type of work, and sharing information with them, organising common training programmes, exchanging documentation, skill, information.

• Originally, only three or four NGOs may be selected for undertaking this work as pilot projects. If these first efforts succeed, more NGOs may be given an opportunity to share in the work. Only then, can the triggering of into a mass movement be expected. If the efforts spread, NGOs in the district engaging in podu containment, may have to form a consortium for interaction with the district administration, banks, and infrastructural agencies.

APPENDIX 9

COORDINATION BETWEEN AGENCIES

A variety of enabling agencies, have to coordinate, and provide inputs for the success of the programme. Coordination is absolutely vital. This has to take place at three levels : local/agency level, district level and state level.

1. Local/Agency Level

The project officer placed by the NGO as animator of a project is the primary coordinator. It is his task to see that inputs from official, non-official agencies, needed for the project, are provided at block level. He interacts on almost daily basis with the local DFO or Ranger of the Forest Department, and also with the BDO.

He or the NGOs office keeps up correspondence with the local agencies, and maintains documentation including an account of day-to-day progress.

If he encounters difficulties, he informs the NGO to which he belongs. and the latter can, if need be, contact the Collector, or other relevant authority for the speedy removal of snags and irritants.

As a matter of routine, a monthly coordinating meeting must be held at block level with representatives of all infrastructural agencies, also banks, to review the progress of the work. The BDO can be asked to preside at this meeting. Minutes are kept by the project officer or the leader of the escorting NGO.

At local agency level, coordination deals primarily with activities, and day-to-day problems of administration. It's the locus where real action takes place and results must show.

2. District Level

A similar process takes place at district level, but in this case the initiative and driving force behind coordination is the leader of the NGO, which does the escorting. He interacts with the DFO, with the Collector, with district heads and infrastructural agencies, and if need be, also with

other NGOs working in the district and who can provide assistance, for instance in training.

A monthly rhythm of meetings can be established as a routine. The leader of the NGO functions as secretary of the consortium. The Collector functions as the Chairperson. If the latter is absent, however, the meeting is not postponed, but another member functions as chairperson.

The monthly progress of the project is reviewed on the basis of documentation from the field. The project officer should also attend this meeting. Minutes are kept of these meetings, and circulated as soon as possible amongst the participant agencies.

At district level, good coordination will concentrate on the building up of sound policies of implementation.

3. State Level

At highest level SIDA, or other donor agency, takes the initiative of coordinating with highest state officials, especially those of Forest Department.

Meetings are held on the occasion of routine consultations and reviews twice a year. They are meant to review the progress of the scheme on the basis of monthly reports sent from the NGOs and from the field projects. The leaders of the NGOs escorting projects, are invited to these meetings.

Such coordination meetings must remove major obstacles from the implementation of the projects, decide on broad strategies, and develop policy at state level.

The Coordinator of SIDA functions as secretary of such meetings. The Chief Secretary, Additional Chief Secretary or another senior government official functions as Chairman. Minutes are kept of the meetings and are circulated among relevant departments and also to the district level officers.

If meetings of this coordination system at three levels, are held at regular intervals, the monitoring needs of the project will be taken care of as well.

APPENDIX 11

ACTION PROGRAMME DURING THE FIRST YEAR OF OPERATION

SHIFTING CULTIVATORS (SC) & FIELD STAFF	N G O	DONOR AGENCY
PHASE I		
1. Identify area and group of SC most favourably disposed for pilot project.	1. Arrive at a corporate commitment to take/not to take up escorting of SC & decide on steps to strengthen the organisation.	1. Initiate the constitution of a shifting cultivation cell with adviser field staff & plan out the project.
2. Hold panchayat & elicit people's commitment. Initiate panchashila.	2. Approach SIDA & work out a memorandum of understanding.	2. Negotiate with Forest Department & coordinate.
3. Carry out Benchmark Survey of area selected for pilot project.	3. Post staff in the field.	3. Identify NGOs for taking up pilot projects.
4. Promote horizontal learning PARD, etc., for Awakening & People's Education.	4. Work out accounting system and cost estimate for project. Submit for approval to SIDA.	4. Organise workshop for NGOs & officers of Forest Department.
5. Foster Village Forest Committees.	5. Send field staff for orientation & training.	5. Work out a MOU with Forest Department & Government of Orissa.
6. Organise Forest Mela by way of confirming what people have decided during Phase I, and to prepare for Phase II.	6. Build up liaison with DFO, BDO, local administration.	6. Release funds to NGOs against submission of cost-estimate.

SHIFTING CULTIVATORS (SC) & FIELD STAFF	N G O	DONOR AGENCY
PHASE II		
7. Work with SCs for a detailed action plan for each settlement/watershed.	7. Plan out a monitoring system.	7. Send staff for field visits to projects.
8. Initiate implementation of viable alternatives.	8. Tabulate data of Benchmark Survey and draw up report.	8. Draft report of workshop (see No. 4) and circulate amongst NGOs, Forest Department and Government of Orissa.
9. Send village workers for training to VFTC.	9. Coordinate with district administration & DFO and communicate to them action plans decided by SCs.	9. Send staff for technical training.
10. Assure functioning of other infra-structures, irrigation, health, education.	10. Maintain liaison and see that inputs reach field level in time.	10. Check ability & effectiveness of VFTC to provide technical training to field staff of NGOs & villagers. Remedy weaknesses, if any.
11. Promote Federation of Village Forest Committees at watershed level.	11. Conduct monthly review meetings with staff & district level administration.	11. Strengthen liaison with other agencies which can provide inputs, e.g., UNICEF, CARE.
12. Arrange monthly coordination meetings at block level.	12. Submit monthly progress reports and accounts to SIDA.	12. See that arrangements are made for wage labour for SCs during lean period.

SHIFTING CULTIVATORS (SC) & FIELD STAFF	N G O	DONOR AGENCY
PHASE III		
13. Assure wage labour for SCs during lean period.	13. Make monitoring system operational.	13. Monitor the functioning of the monitoring and accounting systems.
14. Set up a simple MIS system with data needed to monitor progress/ costs & teach SCs to collect information.	14. Send field personnel for further training & retooling.	14. Check & standardise MIS system & forms for use by NGOs.
15. Assure equitable sharing of minor forest produce & effective protection against intrusion by outsiders.	15. Network with other NGOs in the district.	15. See that auditors are sent to NGOs.
16. Arrange for marketing of forest produce.	16. Explore possibilities of expanding project during the 2nd year.	16. Arrange for evaluation by a third party consultant.
17. Initiate saving clubs amongst SCs.	17. Review with DFO & Collector the support given by Forest Dept. & other departments.	17. Organise field trip with Chief Conservator of Forests. Meet SCs, NGOs, DFOs, Dist. Collector & administration.
18. Improve level of education, health, drinking water.	18. Urge the issuing of land pattas & proper demarcation of forest & revenue land by district administration.	18. Help Forest Dept. to draft memorandum of Forest Protection Committee.

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| 19. Introduce income generation projects for women. | 19. Collect data & write up annual report for SIDA. Finalise accounts. | 19. Organise review workshop with NGOs, Govt. of Orissa, FD, and explore possibilities of extension during 2nd year. |
| 20. Evaluate with SCs progress of project after 1st year of operation. | 20. Arrange forest mela/yatra to celebrate completion of 1st year, to spread the message & honour agencies which have cooperated. | 20. Draft Evaluation Report, submit & discuss with Government of Orissa & Government of India. |